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REPORT TO THE 54th LEGISLATURE

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HIGHLIGHTS

Montana is a winner in the designation of the new National Highway System. Support from every region and economic sector and strong bi-partisan support from Montana's Congressional Delegation helped achieve designation of roughly 3,800 miles of our most important highways—over 800 miles more than the original proposal. Clear economic benefits and a high level of federal support are likely for these routes.

An innovative approach to improving the quality of construction and relations between DOT's and contractors is "putting the handshake back into doing business." It's a win-win-win situation—for MDT, for contractors, and for the taxpayers of Montana.

A recent reorganization will put the department in closer touch with its customers and bring a team-managed approach to the challenges of a $160 million-per-year construction program and maintenance of one of the biggest road systems in the country.

Doing more with less is a reality in the department. Since 1980, staffing has been reduced by over 370 employees and the construction program has nearly doubled. Responsibilities have grown considerably in the maintenance program. And broad planning functions and collection and enforcement of motor fuels taxation are now part of the deparment's charge.

Tax enforcement, in particular diesel tax, has netted a dramatic increase in proceeds to the Highway Account. Reported use of diesel fuel is up by over 40 million gallons since MDT-sponsored legislation went into effect changing the way the tax is collected. As a result, plans in place now will keep the transportation program "in the black" well into the next century without a tax increase.

The Community Transportation Enhancement Program is up and running, with 450 to 500 projects likely by the end of the six-year program valued at over $25 million. Communities are undertaking very popular local projects which in many cases wouldn't otherwise be built. Meeting federal requirements has been difficult and frustrating, but the program is progressing more smoothly now. The results will be obvious and will truly enhance Montana's communities.

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ON THE COVER—MONTANA'S SPANISH PEAKS AS SEEN FROM THE GOOCH HILL ROAD NEAR BOZEMAN. ROB OUTLAW PHOTO.

GLOSSARY

ISTEA—THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991. IT'S CALLED "ICE TEA," BUT IT'S NOT. IT'S A $17 BILLION PER YEAR SPENDING PROGRAM, TARGETED AT THE COUNTRY'S TRANSPORTATION INFRASTRUCTURE.

MODAL/INTERMODAL—INTENDED TO ADDRESS ALL MAJOR MODES—TYPES OR MEANS OF TRANSPORTATION—AS WELL AS LINKS BETWEEN THOSE MODES.

FTE—FULL-TIME EQUIVALENT—AUTHORITY TO HIRE A WORKER OR WORKERS FOR 2,080 HOURS PER YEAR, THE EQUIVALENT OF A FULL-TIME EMPLOYEE.

LETTER FROM THE DIRECTOR

November 10, 1994

MARV DYE
DIRECTOR OF TRANSPORTATION

MONTANA HIGHWAY COMMISSION
THORM FORSETH, CHAIR
ROY DUFF
PATRICIA ABELIN
WALLY BELL
ED SMITH

MONTANA AERONAUTICS BOARD
RON MERCER, CHAIRMAN
BYRON BAYERS
FRED BOOTH
JOEL FENGER
LELAND FORD
DOUGLAS FREEMAN
BOB HECTOR
GREG MECKLENBURG
SHAREL STROH

Our primary responsibility is service to the public.

And I have a great deal of confidence in the people who make up the Montana Department of Transportation and in our ability to capably serve Montana's transportation needs.

We're working hard to see our program is a productive one and the funding we're responsible for is being put to good use, as quickly as possible, and in a way that assures good value for our customers.

WE'RE WORKING HARD AT MDT TO ASSURE OUR PROGRAM IS A PRODUCTIVE ONE, PROVIDING GOOD VALUE TO OUR CUSTOMERS.

The transportation program is an essential component of economic development and job creation and we recognize the important responsibility we've been assigned. Nothing is a higher priority for this administration than economic development.

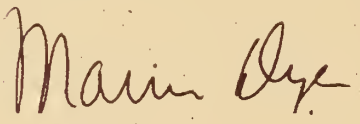
Reorganization and a quality improvement plan were undertaken last July, efforts based on empowering employees at every level in order to better serve Montana, Montanans, and our visitors.

It means quite a change in the way we've done business. Many more people will be involved in decision-making and decision-making will occur at lower levels in the department. It's a style of management I'm used to and comfortable with. And even though such a change unavoidably brings discomfort, in the long run we'll all benefit.

We've gotten the message Montanans want less government, but still have high expectations for public services. In response, staffing is being reduced even further. And people at every level of the department are involved in the search for better, more efficient ways to serve our customers.

Reducing the workforce is a commitment we've made and will stick to. Still, many in the department are concerned service will suffer with further cuts. So we're facing tough decisions and difficult choices in the times ahead.

We recognize change brings risk. But we're also aware there is more risk today in *not* changing. As Governor Racicot is fond of saying, those institutions that survive and thrive into the 21st century will be those that prove themselves responsive—to changing needs and to the concerns of our changing population.



Marv Dye
Director of Transportation

A New Way of Doing Business

Reorganization & Quality Improvement

Reorganization is intended to put the department in closer touch with its customers and adapt a team-managed approach to the challenges we face.

The most important aspect of the reorganization elevates the field districts and the Maintenance Bureau to division status. In addition, the Environmental Services Bureau was attached to the Director's Office. With the importance of these functions, it makes sense that they be part of the department's management team and involved in policy and decision-making.

Because the districts manage roughly two-thirds of the department's human resources and at least that much of the overall budget, they have a place at the table and a say in the way we conduct our affairs.

Along with these changes comes a change in management philosophy. We recognize we must lead by example, and all employees must be empowered to do their jobs. "Empowered" is a popular new word, but it's really a contemporary expression of respect for the individual. It reflects the belief that success comes through the effort and commitment of all employees. It recognizes that those who are in direct contact with our customers know best how to improve service to those customers.

A conclusion reached by nearly every business and organization that's undertaken a thoughtful, "heads-up" look at their work is that management "from the top" just doesn't make sense. Departments of Transportation across the country typified the "top-down" management style and many of them, MDT included, are making the shift to a more participatory style of management.

Empowerment, in simple terms, means releasing control to the person closest to solving the problem. We face a difficult transition, but an aggressive training program is taking shape and we're working to adopt customer-friendly, error-free processes. MDT will change, and the change will lead to improved morale, better job satisfaction, and better service to our customers.

There are countless examples of businesses like ours that have embraced this change toward a more participatory style of management. We're benefiting from their experience. And we have the advantage of a dedicated, talented, and motivated work force Montana has long been known for.

We recognize the value of teamwork to get this department headed in a new direction. With the growth in construction spending and continuing decline in staffing levels, achieving the department's mission requires teamwork and a new management philosophy, coupled with expanding use of new technology. Quality and productivity initiatives are a better way of doing business.

We won't achieve the department's goals immediately—changes of this type require a fundamental change in the culture of an organization and take years to implement. But over the next several years, the department will be able to demonstrate an increased level of service and accountability to the legislature and Montana's citizens.

WE RECOGNIZE THE VALUE OF TEAMWORK TO GET THIS DEPARTMENT HEADED IN A NEW DIRECTION.

Partnering and Quality Improvement

The days of adversarial relationships between MDT and construction contractors are coming to an end, thanks to an innovative new method of conducting business.

The new method is called "partnering," and it's an important part of the department's concern for quality and renewed emphasis on customer service.

The concept was introduced to government departments of transportation in 1991 by then-Director Charles Cowan of the Arizona Department of Transportation. Cowan saw it work first-hand with the Army Corps of Engineers.

Described as "putting the handshake back into doing business," it relies on getting project participants together for communication and cooperation. The process sets the stage for all those involved to agree on expectations, ensure those agreements can be kept, and provide a means to resolve disputes that often come up on complex construction projects.

Contracts establish legal relationships—partnering establishes working relationships. A workshop is held at the beginning of the contract to establish an environment of trust, communication and conflict resolution. The emphasis is on building a quality project and goals are cooperatively developed and then committed to.

Because of the success of the program, most contractors continue to elect to have a partnering meeting and use the process on all major projects.

Quality improvement results include new specifications that provide incentives for high-quality asphalt paving. A contractor who can produce and place a uniformly well-compacted "paving mix" can qualify for as much as a five percent incentive bonus. As a result, new quality controls have been implemented by contractors and most of the major contractors have an in-house quality control program.

Those involved in the partnering process attest to the commitment to teamwork, cooperation and quality that results. It's a win-win-win situation—for MDT, for contractors, and for the taxpayers of Montana.

Project Delivery

While partnering and quality improvement efforts are already yielding good results for MDT and Montanans, some communities and road users have been frustrated with delays in project "ready dates" and changing timetables for developing and constructing much-needed improvements.

In some cases, what appear to be delays are the result of a change in philosophy. This change is meant to ensure that project timetables are realistic and can be met. More realistic assumptions are being made about the availability of federal funding to improve reliability of the department's projections.

Permitting, right of way issues, environmental issues, complications that arise during the design process, and funding all have a dramatic effect on project scheduling. No schedule can be truly firm until all the preliminary work is done just prior to contract letting. And delays can be frustrating for everyone involved.

Seventy-five percent of the major projects

A NEW PUBLIC INVOLVEMENT PROCESS EMPHASIZES QUALITY COMMUNICATION WITH THE PUBLIC AND CONSTITUENT GROUPS, ACTIVELY GATHERING INPUT, RESPONSIVENESS AND BEING OPEN TO OUTSIDE INVOLVEMENT. JOHN REDDY PHOTO.

that made up the program submitted to the '93 Legislature were let to contract on schedule. The record on smaller projects is much higher—over 90 percent. Considering all the factors beyond the department's control, we consider this a good record. And with more realistic assumptions and the attention given to improving processes and resolving issues that tend to delay projects, we expect to improve project delivery and boost confidence in the department's scheduling projections.

Redefining Public Involvement

We recognize we can't be all things to all people. But common sense and experience suggest public acceptance, support and confidence in decision-making can expedite project development. It will mean better use of resources and better projects—projects that best meet the overall public interest.

MDT's mission is to *"serve the public by establishing a transportation system that emphasizes safety, environmental preservation, cost-effectiveness and quality."* To reflect this, two of our most important goals are to:

- Be responsive, informative and open to outside involvement, and to
- Communicate with the public and constituent groups and actively gather their input.

Simply affording the public an opportunity to comment isn't enough—we recognize we benefit by involving the public *in a meaningful way*. As Governor Racicot has said, in democracy "the people. . . are not the spectators; they are the participants."

The department developed a new process to foster meaningful involvement. It's based on a fairly simple premise—that agency and public needs and awareness of basic human nature should drive the process, not statutory requirements.

This isn't to say statutory requirements can or should be overlooked. But achieving the agency's mission—service to the public, providing facilities and systems in a timely way, accomplishing a clearly stated, well-thought-out purpose—today requires meaningful public involvement.

Agencies must be more responsive. Being responsive means being better listeners and better communicators. It means taking what we learn from public involvement and applying it to the work at hand. Achieving meaningful involvement and responsiveness requires that we recognize basic human needs—the individual's need to be recognized, and to have some control over his or her lot in life.

WITH MORE REALISTIC ASSUMPTIONS ABOUT FUNDING AND IMPROVED PROCESSES, WE EXPECT TO BOOST CONFIDENCE IN THE DEPARTMENT'S SCHEDULING PROJECTIONS.

The new process is intended to change the way we work with the public. Giving early attention to a public involvement plan, making frequent informal contacts with interested individuals and groups, and concentrating on clear communications will improve the service we provide. And improve the projects we build.

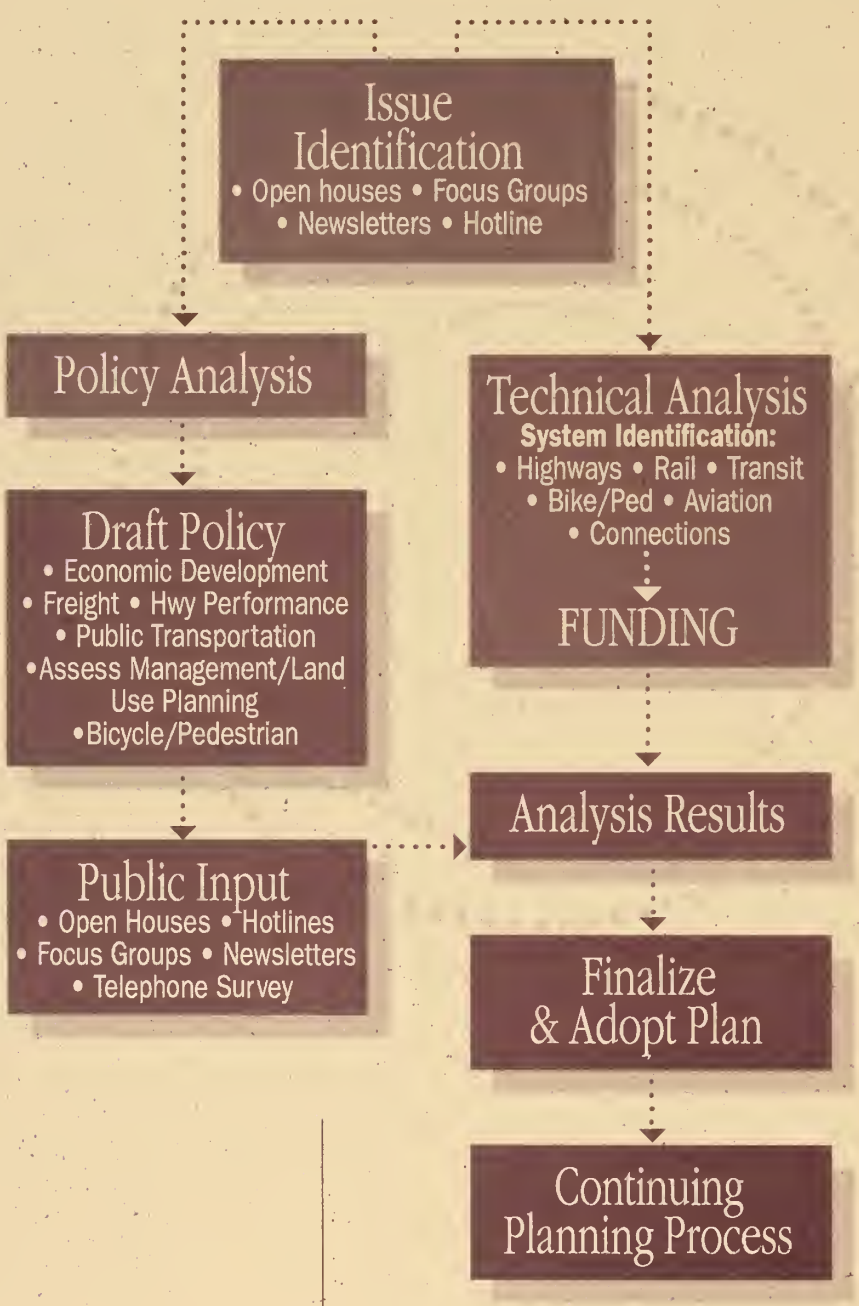
These goals help set a direction for this new effort:

- Provide useful, timely information to the public throughout the development of projects—from planning, programming and preliminary engineering approval through final acceptance of the project by the Chief Engineer and Highway Commission.
- Proactively seek public involvement and comment in planning and project development.
- Facilitate open discussion of controversial issues.
- Respond to comments and suggestions so that useful ideas are incorporated; ensure public comments are heard and considered in technical studies, as well as in final decisions.

TranPlan 21 Provides Direction

In January 1995, Montana will have its first statewide intermodal transportation plan. TranPlan 21 is being developed in response to new federal regulations that require states prepare statewide plans by early 1995. Once completed, Tranplan 21 will provide Montana a framework for transportation planning and programming decisions well into the next century.

TranPlan 21 Development



The plan addresses the major transportation issues of importance to Montanans including

- economic development,
- tourism, freight movement,
- air and rail service,
- transit,
- highway performance and
- bicycle and pedestrian facilities.

To meet the tight deadline for completion of the plan, the department enlisted the help of a team of national and state firms familiar with intermodal planning and Montana's unique transportation needs.

The department's effort included an extensive transportation planning public involvement process and several "firsts" for the department.

- Although public open houses were held throughout the state, the department also installed a toll free TranPlan 21 Hotline to provide a way for citizens to get involved in the process without having to travel to meetings.
- The department also kept over 3,500 interested citizens informed about the plan through a quarterly newsletter and established focus groups of interested stakeholder groups to identify specific issues of concern.
- Finally, the department conducted its first ever random telephone survey to assess general citizen reactions to proposed alternatives for future transportation decisions.

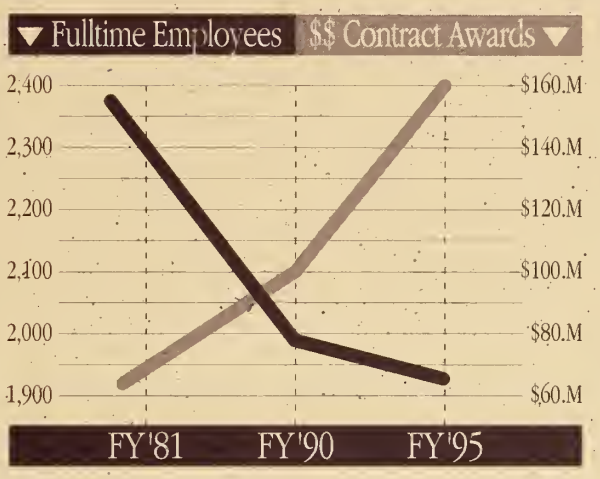
Throughout the process, the department coordinated its efforts with Montana's three largest urbanized areas (Billings, Great Falls, Missoula), since they're also subject to new federal requirements for their transportation plans.

The department is also meeting the new federal requirement for the development of six management systems designed to help states make better-informed decisions on transportation needs.

Two of the management systems—Bridge and Pavement—were already in place and are being revised to meet the federal requirements. The new management systems—Congestion, Intermodal, Safety and Public Transportation—were developed in conjunction with TranPlan 21.

When implemented, the six management systems, along with the existing Traffic Monitoring System, will provide valuable data on system performance and service necessary for the most cost-efficient use of scarce resources.

Development of TranPlan 21 and the new management systems represents a significant change in transportation planning in Montana. In the past, each mode was addressed separately and many opportunities for coordination were lost. As TranPlan 21 and the management systems are implemented and evolve, the department will be able to provide Montanans with a better-integrated and more efficient transportation system appropriate for the 21st Century.



More with Less

Doing more with less is a reality at the department. Since 1980, staffing has been reduced by roughly 375 employees, while responsibilities grew in large steps. The construction program has nearly doubled.

Budget authority, largely as a result of federal aid increases in the construction program, increased roughly $47 million from 1990 to 1995 alone. During the same period, the department's budget to administer the program decreased by about $2 million.

Authorized full-time employees (FTE) have been reduced by 47 between 1990 and 1995 (1,981 FTE to 1,934). Total budget authority increased by 17.6 percent over that period, but authorized staffing levels decreased by 2.4 percent. This came at a time when the department took over broad transportation planning responsibilities and collection and enforcement of motor fuel taxes. These responsibilities, which included 48.5 FTE, were with the Departments of Revenue and Commerce prior to 1991 and were transferred with formation of MDT.

The Governor's Office of Budget and Program Planning has requested the department decrease an additional 93 FTE through the Executive Planning Process for the '97 biennium. The department has included requests for 42 FTE for motor fuel tax compliance, additional federal or state regulations, and ISTEA requirements. This results in a net reduction of 51 full-time employees.

The effects of these additional cuts on service remain to be seen. People want less government and the department is striving to see that where staffing and service is reduced, it's in areas that will have the least impact on the public.

Managing a larger program with a reduced staff has been accomplished largely through efficiencies gained by the department's management systems, continuing efforts to automate and change processes, and the determination and dedication of our employees. But after more than a decade of doing "more with less," it's reasonable to expect that service may suffer as a result of continuing to cut the workforce.

Doing more with less.

STAFFING HAS BEEN REDUCED BY HUNDREDS OF EMPLOYEES SINCE 1980, WHILE THE SIZE OF THE CONSTRUCTION PROGRAM HAS NEARLY DOUBLED. EVEN WHEN THE RISING COSTS OF CONSTRUCTION ARE ACCOUNTED FOR, THE CONSTRUCTION PROGRAM HAS STILL GROWN BY NEARLY 50 PERCENT. DURING THE SAME TIME, RESPONSIBILITIES HAVE GROWN WITH DOZENS OF NEW FEDERAL REQUIREMENTS, BROAD PLANNING FUNCTIONS AND THE FUEL TAX COLLECTION PROGRAMS.

PROGRAM & ISSUE UPDATES

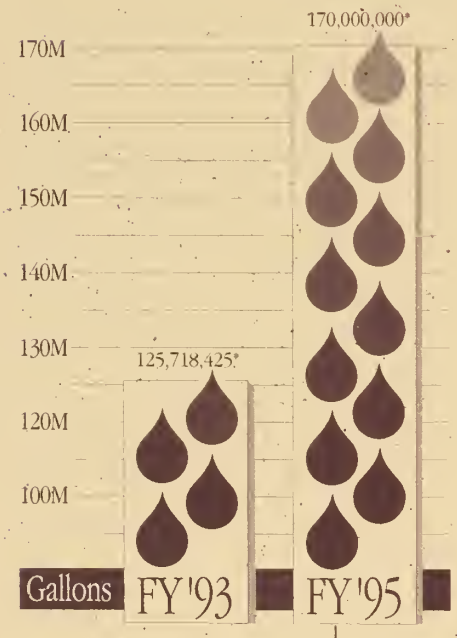
Elevating Taxation on Diesel Fuel

During the 1993 Session, MDT introduced a bill that moved the point of taxation on diesel fuel from the retailer to the distributor. The bill passed and became effective January 1, 1994, and the result has been dramatic:

- The tax collection process was accelerated and became more effective, since the tax is collected when fuel is distributed, rather than when it's consumed. This increased cash flow and interest earnings to the General Fund.
- MDT now has a mechanism for tracking the movement and use of diesel within Montana, substantially reducing the potential for tax evasion.
- Reported use of diesel fuel—the number of gallons reported for tax purposes—grew dramatically. Based on early results, it appears we've never really known the true volume of diesel used in the state.

Reported Use of Diesel Fuel

MOVING THE POINT OF TAXATION FROM THE RETAIL LEVEL TO THE WHOLESALER PROMPTED A DRAMATIC INCREASE IN REPORTED USE OF TAXABLE DIESEL FUEL. IT APPEARS WE'VE NEVER REALLY KNOWN THE TRUE VOLUME OF DIESEL USE ON THE HIGHWAYS.



Diesel fuel collections increased 24 percent, with 19 million additional gallons reported for the last six months of fiscal year '94 (when the change took effect).

The "old" retail-level taxation allowed anyone to buy bulk deliveries of diesel fuel tax-free. It presented a clear potential for tax evasion—a buyer could simply claim the bulk purchase was for off-highway use and avoid the tax, then use that same fuel in highway vehicles. Elevating the taxation point eliminated this loop-hole.

The change means those who buy diesel for off-highway use can obtain permits or keep records and attest to their off-highway use to be eligible for a tax refund—the same process required for gasoline refunds.

Montana's Dyed Fuel Program

A bill authorizing a dyed fuel program was also introduced in the last session, but MDT's legislation was precipitated by passage of the federal dyed fuel program (1993 Omnibus Budget Reconciliation Act, effective Oct. 1, 1993).

Montana's dyed fuel program emulates the federal law in many ways, but some exemptions are different. The highlights:

1) Undyed diesel may be consumed on or off the highway. All undyed diesel is taxed at the distributor level and may **not** be sold without the state tax for any reason. (Diesel users exempt from taxation who purchase undyed, taxed diesel must pay the tax at the time of purchase and present documentation to MDT for a refund under the program.)
2) Dyed diesel may only be used off-highway and may be purchased state-tax exempt. This applies except when moving off-road vehicles from location to location or under the exemption for government vehicles below.
3) Governmental entities can use dyed (untaxed) fuel on-road if:
   - The vehicles are owned by the governmental entity; or
   - The vehicles are leased by the governmental entity, and the lease terms meet the criteria for a "Permanent Lease" (18.10.302, Administrative Rules of Montana).

Operating a vehicle on the highway with dyed fuel in the supply tank can bring substantial penalties:

1st Offense:	Fine not to exceed	$ 500
2nd Offense:	Fine not to exceed	$ 1,000
3rd Offense:	Fine not to exceed	$ 2,000

MDT's Motor Carrier Services Division enforces the program. Fuel samples are drawn from the supply tank of diesel-powered vehicles and cargo tanks of diesel common carriers during routine stops at weigh stations or by "roving" officers. The fuel samples are visually tested for dye and then forwarded to the Montana Department of Health and Environmental Sciences for lab testing.

Lab equipment was purchased as part of a federal grant to test for adulteration—numerous additives from waste oil to toxic waste. In return, MDT signed a cooperative agreement with the Internal Revenue Service (IRS) to share the test results in order to help enforce the federal dyed fuel program.

Hazardous Materials Cleanup

Hazardous materials problems of some type were identified at 263 MDT sites, a result of years of past practice when environmental issues didn't receive the attention they do today. And after two years of effort since the 1993 Hazardous Waste Audit, the department has not achieved compliance with state and federal hazardous waste regulations. As a result, a cleanup and management program will extend at least through the 1997 Biennium and $1 million for this purpose is being requested for each year of the biennium.

Each site is unique in the extent and type of contamination. And accurate costs can't be determined until individual site plans are developed. Many sites will require monitoring plans and installation of monitoring equipment.

Floor drains are a problem as well. They're found at most department facilities and drain directly into the ground or a close-by drain field. They're classified as injection wells by the EPA and their use was ordered discontinued. Compliance will be costly., but work is underway to meet requirements to connect to city sewer systems or install vaults.

Despite this rather bleak picture, progress is being made in bringing maintenance facilities into compliance with hazardous waste regulations. During the last eighteen months, 130 barrels of waste stripping paint has been repackaged and disposed of from Dillon, Helena, Butte, White Sulphur Springs, Townsend and Bozeman. In addition, a barrel of mixed hazardous waste was disposed of from the Helena Materials Lab.

Thirty-four MDT employees are now trained in OSHA-required hazardous waste operator training and specific on-the-job training related to repackaging and consolidating paint wastes. The training allows use of our own forces to package waste prior to transport and disposal, saving consultant and contractor costs.

Tasks were assigned to environmental consultants to conduct in-depth site investigations at the eleven primary maintenance facilities and at the Helena Fairgrounds facility as well.

The Helena Fairgrounds facility is a state Superfund site. In the past, a portion of the facility was used as a waste dump. An extensive groundwater investigation determined the nature and extent of contamination. Although initial pollutant levels appear low, additional testing will be conducted and it's hoped the area is clean enough to be removed from the state Superfund list.

Waste paint cleanup is now underway at Great Falls, Kalispell, Missoula, Havre and Lewistown. A total of 139 barrels of waste paint will be transported and disposed of from these facilities.

Several sites have leaking underground petroleum tanks. On-going work includes continued monitoring and remediation at these facilities. Three facilities have known solvent plumes and a cooperative effort is underway with the state Water Quality Division to investigate and remediate these sites.

A hazardous waste management and record keeping plan is being implemented for all MDT facilities and management plans are being developed. These plans are key to ensuring that waste is being handled responsibly and in compliance with current regulations.

MANAGEMENT AND RECORD KEEPING PLANS WILL ENSURE HAZARDOUS WASTE IS BEING HANDLED RESPONSIBLY.

Converting to 'System International'

In response to federal mandates, MDT is actively converting from English units of measure to the SI (System International) or metric unit of measure.

The Omnibus Trade and Competitiveness Act of 1988 declared a policy to designate the metric system as the preferred system of weights and measures for United States trade and commerce.

Federal agencies were required to convert to metrics for business-related activities by the end of fiscal year 1992, except where impractical or likely to cause significant inefficiencies or loss of markets. The Federal Highway Administration determined 1992 was impractical, but adopted a five-year plan targeting complete conversion to metric by the fall of 1996.

MDT's plan to respond to the federal mandate provides for a common development and management process so the conversion takes place in an orderly way. Although some metric unit projects will be awarded to contract as soon as August of 1995, the schedule envisions all projects in metric units by September of 1998 to avoid jeopardizing the flow of federal funds.

Converting guide signs, mileposts and the like to metric units met with resistance or hostility in many states, Montana included. One concern is the cost of conversion. As a result, enforcing the federal mandate on converting signs to metrics is in limbo now due to congressional action. Many states, Montana included, plan to continue to work toward establishing metrics for reference systems, including establishing "kilometer posts."

ENFORCING THE FEDERAL MANDATE ON CONVERTING SIGNS TO METRICS IS IN LIMBO NOW DUE TO CONGRESSIONAL ACTION. ANDY GEIGER PHOTO.

Safety Management System

The Safety Management System is one of six management systems required under ISTEA. It's intended to provide a systematic process for reducing the number and severity of traffic crashes—ensuring that all opportunities to improve highway safety are identified, considered, implemented as appropriate, and evaluated in all phases of the transportation program.

In 1993, the Montana Highway Patrol reported over 18,800 traffic accidents, with a $220 million economic loss.

Important aspects of a safety management system are already in place in MDT's Safety Management Section. The program objective is to reduce the state's accident rate and injury severity rate. The staff identifies accident clusters and high hazard locations, then evaluates the accident data and contributing causes to accidents. During a field review, hazards are identified and countermeasures formulated, then benefits and costs are projected.

From this analysis, a Safety Engineering Improvement Program is presented yearly to the Montana Highway Commission. With their approval, the projects are programmed, designed and constructed. Evaluation of these improvements provides information to further enhance MDT's safety programs.

The Safety Management Section is collaborating with the Department of Justice, Highway Traffic Safety Division and local, state and federal agencies in developing a work plan to achieve full operation and use of the Safety Management System envisioned under ISTEA by October 1, 1996.

In addition to the engineering aspects of safety, a strong public education component will be included in the work plan.

Bridge Management System

Another of the management systems required under ISTEA is the Bridge Management System (BMS), a systematic approach to organizing, planning, designing, constructing, maintaining, rehabilitating and replacing bridges. It's intended to support sound decision-making on a statewide "network" level, as well as on individual bridge projects.

Bridge inspection data provides the foundation. And while bridge inspections have been performed for years (National Bridge Inspection Standards—NBIS), the new inspections are different:

- The NBIS put many different elements of a bridge under three main headings: deck, super-structure and substructure. So the rating of an individual element, such as a joint, is not part of the computer data base—its rating is included as just part of the major component. So NBIS inspections weren't helpful for focusing on particular bridge elements.
- Since a BMS inspection includes individual elements, costs can be projected to allow an economic analysis of bridge maintenance needs so that maintenance strategies are developed within the framework of budgetary constraints. As basic as this seems, it wasn't possible under the NBIS format.

Further, future deterioration of bridges as a result of present day decisions are predicted through a set of "probabilistic deterioration models" in the BMS computer software. So both the immediate and future costs and benefits of various courses of action undertaken today can be determined. This provides a sound approach for developing budgetary strategies, not only for the entire bridge inventory, but also for a smaller subset of structures.

A Bridge Management System is simply a planning tool. But in these times, when doing "more with less" is absolutely required, practical, helpful planning tools are a must.

City Park Rest Areas

The City Park Rest Area Program has resulted in more rest areas along our primary highways at substantially reduced construction and maintenance costs. Local communities benefit as a result of tourists staying longer in their area, as well as longer in Montana.

The Department signed city park rest area agreements with Chester, Fort Belknap, Malta, Harlowton, Plentywood and Twin Bridges. Each of these construction projects has been completed and all six rest areas are operational.

As of early 1993, nine other communities had expressed an interest in the city park rest area program. However, the program funding

TRUSS BRIDGES CAN STILL BE FOUND ALL OVER MONTANA. THERE ARE ABOUT 300 OF THEM, 50 OF THOSE ON THE STATE HIGHWAY SYSTEM. THESE BRIDGES REQUIRE SPECIAL ATTENTION FROM BRIDGE INSPECTORS DUE TO THE NATURE OF THEIR DESIGN AND THEIR AGE. ANDY GEIGER PHOTO

was terminated at the beginning of the biennium. If the 54th Legislature approves funding to continue the program, we plan to continue negotiations with Montana communities.

The average construction cost to the state for federally-funded rest areas is $500,000-$750,000. The state contribution for a city park rest area is limited to not more than $100,000 per community. The average cost savings to the state is estimated to be $400,000 to $650,000.

MDT installs and maintains rest area signing on state highways. The communities' responsibilities under the program include:

- Coordinating with the state during the design phase.
- Awarding and administering the contract.
- Routine maintenance of the facility, including the parking area and access roads for a minimum of ten years.
- Monthly utility costs including hookups.
- Keeping the rest area open 24 hours a day, every day, from April 15 through October 15 for a minimum of ten years.
- Maintaining all "rest area" signing on roads and streets under the city's jurisdiction.

THE DEPARTMENT HAS STRUGGLED TO CONVINCE INTERESTED PARTIES CTEP ISN'T A GRANT PROGRAM.

Community Enhancement

CTEP ("Sea-tep")—the Community Transportation Enhancement Program—is Montana's program to implement enhancement provisions in ISTEA. Enhancements are funded through a 10 percent set-aside from one of our core funding categories—the Surface Transportation Program (STP). In Montana, about $4 million is allocated annually to CTEP.

The Montana program was established in cooperation with the Montana Association of Counties and the Montana League of Cities and Towns. Funds are allocated on a per capita basis to the counties and 51 cities with a 1990 population of 1,000 or greater.

Projects must have a relationship to the transportation system in either function, proximity or impact. Local governments have the responsibility to ensure public participation for selecting and prioritizing projects and for providing the matching funds.

From its beginning, the department has struggled to convince interested parties CTEP is not a grant program. Because of the "strings" attached to federal funding, CTEP must operate under the same rules and procedures as all of the Department's federal-aid programs. There's been frustration over the regulatory burden associated with this program, in Montana and elsewhere. Congress is well aware a regulatory process designed to build multi-million dollar highway projects is not "user friendly" when applied to a small landscaping or sidewalk project. But the requirements remain for the most part. Fortunately, the initial frustration has diminished somewhat and the program is moving ahead more smoothly.

Funds allocated to local government are restricted to non-motorized projects and must qualify under one of several categories. To date, 198 projects are being developed in Montana communities, including:

- Ninety-eight pedestrian and bicycle facilities
- Forty-six landscaping and other scenic beautification projects
- Thirty-one historic preservation projects
- Rehabilitation and operation of nine historic transportation buildings, structures or facilities
- Six scenic or historic highway programs
- Preservation of abandoned railway corridors at four locations
- Two archaeological planning and research projects
- Acquisition of a scenic easement and historic or scenic site
- Projects to mitigate water pollution due to highway runoff
- To date, no projects have been submitted for the control and removal of outdoor advertising.

Of the 107 local governments allocated funds through CTEP, roughly 94 percent have submitted projects. These projects are in different stages of development, from review, to approval, to environmental assessments, to design and construction.

ISTEA authorized the Enhancement Program for six years and we are now half way through the period. By the end of the six-year period there will be between 450 and 500 projects for an expenditure of over $25 million.

While the federal enhancement program diverts funding from highway construction projects, it does allow communities to undertake very popular local projects that in many cases wouldn't otherwise be built. And while it's been difficult and frustrating, the results will be obvious and will truly enhance Montana's communities.

The National Highway System

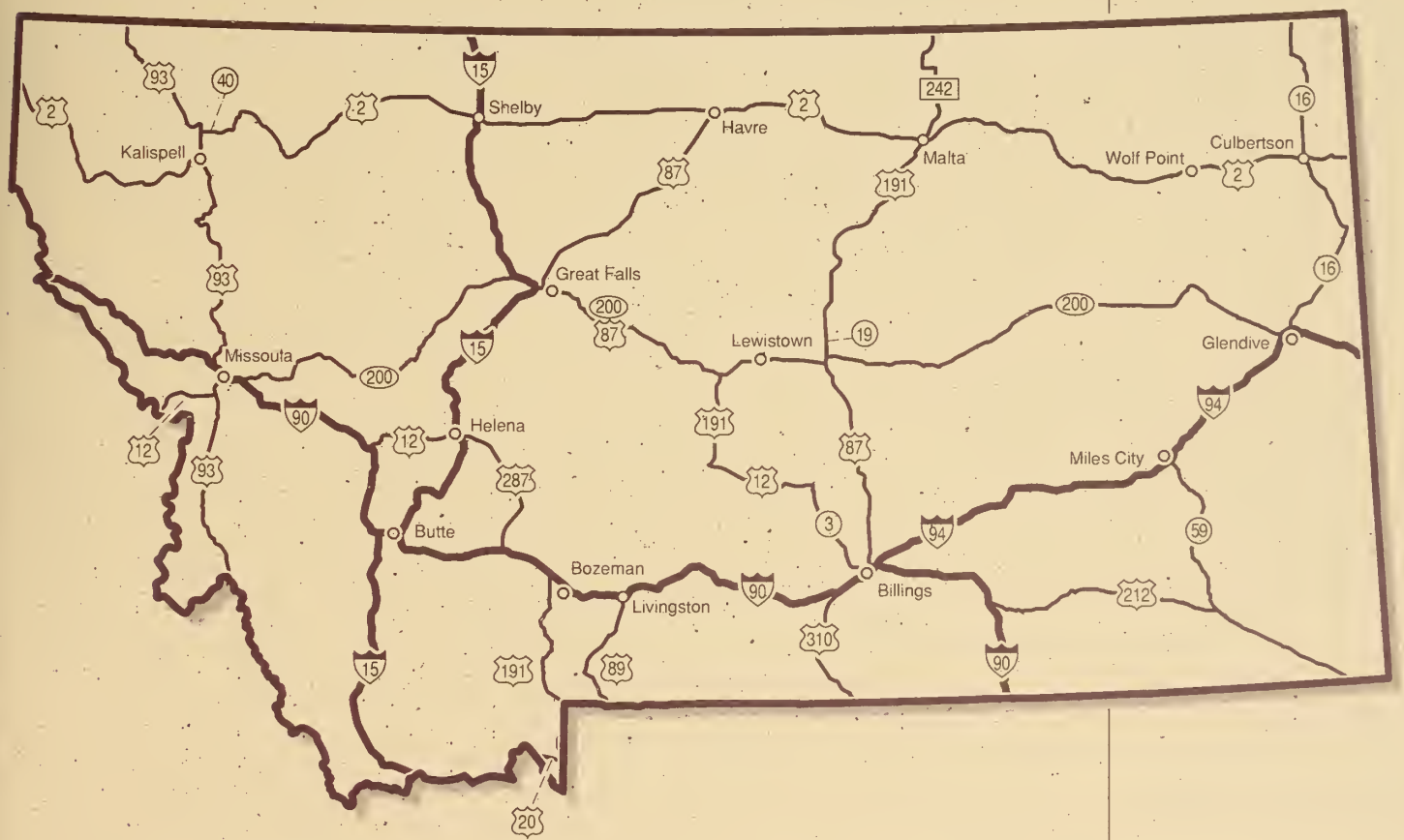
Perhaps the most dramatic change brought by the federal Intermodal Surface Transportation Efficiency Act of 1991 was the elimination of the Federal-aid Primary, Secondary and Urban Systems and funding Programs which had been in place since the 1950s. These familiar programs were replaced with a National Highway System and the Surface Transportation Program.

The National Highway System or NHS is expected to be the principal focus of federal highway investments into the next century. Nationwide, it will include the Interstate and the most important arterial routes for a total of about 160,000 miles nationwide. The NHS will eventually bring a first-class highway to within five miles of 90 percent of all US homes and 95 percent of all businesses and will improve the nation's competitive position in world markets.

Because of the clear economic benefits associated with this new program and the understanding that a high level of federal support for these routes will continue, MDT and other rural western states viewed the original NHS proposed by the US Department of Transportation (US DOT) with alarm. Just a third of our former primary routes would have been included and huge areas of Montana would have been left without NHS service.

Montana's National Highway System

THE NHS NOW BEFORE CONGRESS WILL INTERCONNECT ALL REGIONS OF THE STATE AND LINK MONTANA TO THE NATION'S FUTURE ECONOMIC GROWTH. ONCE APPROVED, MONTANA'S NHS WILL INCLUDE ABOUT 3,800 MILES OF OUR MOST IMPORTANT HIGHWAYS. THIS IS OVER 800 MILES MORE THAN THE ORIGINAL PROPOSAL AND WAS ACHIEVED BY STRONG SUPPORT FROM EVERY REGION AND ECONOMIC SECTOR IN THE STATE AND STRONG BI-PARTISAN SUPPORT FROM THE MONTANA CONGRESSIONAL DELEGATION.



WEATHER AND PAVEMENT SENSORS ARE PLACED WHERE SEVERE WEATHER IS COMMON. COMPUTERS LINK PERSONNEL TO THIS INFORMATION FOR FAST RESPONSE TO STORMS AND ICY ROADS, RESULTING IN BETTER SERVICE AND COST-SAVINGS. IN THE PAST, PERSONNEL HAD TO DRIVE TO THESE REMOTE SITES OR USE GUESSWORK TO DETERMINE WHAT STAFFING AND EQUIPMENT WOULD BE NEEDED. THOM BECKER/CHRONICLE

With these concerns, MDT participated in a coordinated, five-state effort to assure NHS service to the region. Montanans from all economic sectors and regions supported the effort over the last biennium. And with the strong, bi-partisan support of our Congressional Delegation, the NHS now before Congress connects all regions of the state and links us with the national system.

While Montana didn't get all the routes we originally proposed, once approved by Congress, Montana's NHS will serve:

- All cities of 5,000 or more population
- 70% of all motor vehicle traffic
- 75% of all commercial traffic
- 94% inbound and 75% of our outbound freight
- All agricultural regions
- All Indian reservations
- 4 Canadian Border Crossings
- About 7.5 million out-of-state visitors
- Our principle intermodal ports, air terminals, Amtrak terminals and military installations.

While the NHS has many benefits for Montana, improving these routes to modern design standards will take many years—25 percent of our NHS routes were built more than 40 years ago and 60 percent of the NHS routes are less than 40 feet wide (the national standard).

National Transportation System Initiative

Even though designation of the NHS still isn't final in Congress as this is written, the US DOT has initiated another more problematic exercise which would designate a National Transportation System (NTS). This exercise would designate a system to encompass all modes of transportation, public and private, and be the basis for future federal transportation program investments.

While the concept of the National Highway System took nearly a decade to develop, the US DOT intends to put an NTS program forward in late 1995 and use the NTS as the basis for its proposals for the future federal transportation program.

MDT and other state departments of transportation in the region are unanimous in their concerns regarding this federal proposal. Its compressed development time and its focus on high-volume components has the potential to shift federal funding to large metropolitan centers. NTS will be hotly debated in the next biennium and the department will continue to work with neighboring states and the Congressional Delegation to monitor it closely.

TRAINING & TECHNOLOGY

Intelligent Vehicle Highway Systems (IVHS)

IVHS is a multi-faceted concept that seeks to promote safer and more efficient movement of people, goods and services. It involves technologies such as on-board vehicle displays and navigation systems, hazard warning systems, heavy vehicle licensing and weighing systems, and fleet monitoring.

IVHS represents the next generation of interactive highway/motor vehicle technology using computers and advanced technology. Some prefer the terms Automated Transportation Systems or Intelligent Transportation Systems.

These technologies could benefit Montana in handling the expected growth in trade through coordination with other rural states in the region. Even though MDT's ability to devote staff time to them is limited, the department is committed to taking advantage of the technologies in as many ways as possible.

MDT has been involved in the multi-state "TRAC" (Western States Transportation Borders) project to study the institutional, organizational and statutory barriers that limit implementation of IVHS technologies.

The department is also involved in the "HELP" (Heavy Vehicle Electronic License Plate) program for developing and deploying technology to improve the efficiency and safe movement of commercial vehicles. And MDT intends to continue efforts toward designating MSU as a center for Rural Transportation Technology Research and Education.

Western Transportation Institute (WTI)

An agreement recently reached between the Montana Department of Transportation, California Department of Transportation and Montana State University is aimed toward establishing the Western Transportation Institute.

Research and study in advanced transportation technologies for rural highway corridors is the focus of the program, particularly as those technologies are appropriate for western states.

Financial support for WTI is being sought through Congress as part of the federally-funded program for development of IVHS.

To date, the program has dealt largely with urban and major city transportation problems. Some feel potential rural applications may be overlooked unless there's active involvement from rural states.

MSU Design Section

Students in the MDT/MSU Design Section in Bozeman learn to design road and bridge improvements both manually and with the aid of computers on a wide variety of projects.

The program was established in the spring of 1992. Two MDT employees work with eight students, who compete for the positions after completion of their Freshman engineering courses in Civil Engineering or Construction Engineering Technology.

The major objectives of the program are to strengthen or reestablish relations between MDT, MSU students and graduates, and the MSU faculty and staff, and to provide an additional source for educated and experienced employees for the department's design program.

It's a part-time employment opportunity for the students during the school year and full-time employment during the summer. Students earn independent study and internship credits.

STUDENTS AT MSU LEARN TO DESIGN ROAD & BRIDGE IMPROVEMENTS & PROVIDE THE DEPARTMENT WITH EDUCATED & EXPERIENCED EMPLOYEES FOR THE DESIGN PROGRAM.

Design projects range from interstate paving to off-system bridge replacements and urban widening and paving projects. Students work on specialty assignments such as drafting and maintaining the standard drawing library, testing and evaluating new computer software, and assisting in the metric conversion process.

Hands-on design experience proved valuable to the eight students who completed the program. Five accepted full-time positions with MDT, one is with the Federal Highway Administration and two are working for private consulting firms.

Sweepers Attack Dust

Montana's air (and highways) are cleaner thanks to 29 new street sweepers delivered in 1994. The state-of-the-art sweepers will greatly enhance the department's efforts to address and prevent seasonal air quality problems in many Montana communities.

Montana has 10 cities classified by EPA as non-attainment areas for airborne dust caused primarily by wood smoke and road sanding material. In recent years, the department and local agencies have increasingly used harder sanding material and liquid deicing compounds to reduce highway-related dust. The result was a marked improvement in air quality, but more work is needed.

The new sweepers address the problem of "carry-on dust" on the busiest highways. Old, inefficient sweepers that often created more dust than they swept up are being replaced. The Elgin *Crosswind* sweepers act like giant vacuum cleaners and are specially designed to capture the finest dust particles of most concern to health officials.

Approximately half of the sweepers were funded with federal Congestion Mitigation and

SPECIAL REPORT

NEW TOOLS & METHODS IN INFORMATION TECHNOLOGY

A FULLY-AUTOMATED SYSTEM FOR PROJECT FINANCIAL PLANNING AND MONITORING WAS DEVELOPED. IT INTEGRATES MDT'S TENTATIVE CONSTRUCTION PROGRAM, FUND OBLIGATION SYSTEM AND PROJECT COST-SCHEDULING SYSTEM.

POWERFUL COMPUTERS (VAX "SERVERS") IN THE DISTRICT AND AREA OFFICES FACILITATE OFFICE AUTOMATION AND IMPROVE ACCESS TO DATABASES.

GEOGRAPHIC INFORMATION SYSTEM PILOT PROGRAMS ALLOW USERS TO POSE MULTIPLE QUESTIONS ABOUT THE INFRASTRUCTURE AND GENERATE GRAPHIC DISPLAYS ON TRANSPORTATION SYSTEM MAPS.

COMPUTER-ASSISTED DESIGN AND DRAFTING (CADD) WORKSTATIONS WERE ADDED AND PLOTTERS (LARGE PRINTER-LIKE DEVICES) AND SOFTWARE WERE UPDATED TO MEET THE DEMANDS OF THE EXPANDING CONSTRUCTION PROGRAM.

IN THE COMING BIENNIUM, CONVERSION TO METRICS AS REQUIRED BY THE FEDERAL GOVERNMENT AFFECTS MANY OF MDT'S AUTOMATED SYSTEMS. A MAJOR COMPUTER PROGRAMMING EFFORT IS UNDERWAY.

MDT'S PHOTOGRAMMETRY EQUIPMENT IS ANTIQUATED AND MUST BE REPLACED. PHOTOGRAMMETRY IS A CRITICAL PROCESS WITHIN THE PRECONSTRUCTION ENGINEERING PROGRAM, SPEEDING THE DESIGN PROCESS WHILE USING FAR FEWER EMPLOYEES COMPARED TO CONVENTIONAL MANUAL SURVEYS. IT PROVIDES TOPOGRAPHICAL INFORMATION FOR DESIGN PURPOSES BY MEANS OF AERIAL PHOTOGRAPHS.

AN INTELLIGENT VEHICLE HIGHWAY SYSTEM PROTOTYPE WILL ALLOW THE MOTOR CARRIERS DIVISION TO ELECTRONICALLY VERIFY MOTOR CARRIERS' WEIGHTS, LICENSES, PERMITS AND OTHER CREDENTIALS AS THEY CROSS SENSORS ON THE HIGHWAY.

MDT WILL MOVE TOWARD A PRINT-ON-DEMAND CAPABILITY FOR CONTRACT LETTING DOCUMENTS. THIS ENHANCED SERVICE PROVIDES QUICKER RESPONSE FOR CONTRACTORS AND ENGINEERING DESIGN UNITS TO HANDLE THE GROWTH IN THE PRELIMINARY ENGINEERING PROGRAM.

ACCESS TO DATABASES WILL BE IMPROVED VIA NEW END-USER TOOLS SUCH AS WINDOWS-BASED REPORT WRITERS AND QUERYING CAPABILITIES.

ISTEA MANAGEMENT SYSTEMS AND THE HIS HIGHWAY INFORMATION SYSTEM WILL BE INTEGRATED. LINKING THE "OLD" AND "NEW" SYSTEMS WILL ASSURE CONSISTENT INFORMATION ACROSS ALL THE MANAGEMENT SYSTEMS.

GEOGRAPHIC INFORMATION SYSTEM CAPABILITIES ARE BEING EXPANDED.

IMAGING. A PROTOTYPE PROJECT INVOLVES VIDEOTAPING ALL OUTDOOR ADVERTISING SIGNS AND INCLUDING A PHOTO IMAGE IN THE DATABASE OF SIGN RECORDS. CONTROL OF ADVERTISING SIGNS MEANT TO BE READ FROM THE HIGHWAY IS REQUIRED UNDER BOTH STATE AND FEDERAL LAW. WITH THOUSANDS OF EXISTING SIGNS AND NEW SIGNS GOING UP EACH DAY, THIS TECHNOLOGY WILL HELP IMPROVE ENFORCEMENT. IT'S BEING IMPLEMENTED WITH STRONG SUPPORT FROM THE FEDERAL HIGHWAY ADMINISTRATION.

OTHER IMAGING TECHNOLOGIES INVOLVE SCANNING AS-BUILT DESIGNS AND OTHER DOCUMENTS, THEN PROVIDING A COMPREHENSIVE ELECTRONIC RECORDS MANAGEMENT PROCESS FOR COMPLETED CONSTRUCTION PROJECTS.

Air Quality Improvement Program (CMAQ) funds after Montana and several other states questioned initial federal guidance that severely restricted use of these funds.

Only Missoula qualified for funding under that federal interpretation. But with a total of 12 areas in violation of standards for transportation-related emissions, MDT felt Montana's air quality needs were not being fairly addressed by restricting CMAQ eligibility to just one area in the state. FHWA and EPA finally agreed and the department quickly arranged purchase of the sweepers for use in all of the officially-designated non-attainment areas.

Because CMAQ-funded sweepers could only be used in those official non-attainment areas, and because of long-standing needs to update the department's aging sweeper fleet, the remaining sweepers were funded through regular department equipment funds. These sweepers can be used anywhere in the state and will help ensure that other areas maintain good air quality.

Montana residents will benefit more from the new sweepers as a result of cooperative agreements with several communities that allow use of the CMAQ-funded sweepers on local as well as state-maintained streets. These agreements provide the flexibility necessary for the department and communities to use the sweepers to maximum advantage.

TECHNOLOGY & INFORMATION SYSTEMS PLAY AN EXPANDING ROLE IN TRANSPORTATION. IMPROVED MANAGEMENT SYSTEMS, REFINED & AUTOMATED PROCESSES, AND A WELL-EDUCATED WORKFORCE ARE ALL REQUIRED.

DOCUMENT MANAGEMENT. "PRINT ON DEMAND" CAPABILITIES INVOLVE MANAGING AN ASSORTMENT OF ELECTRONIC FORMATS SUCH AS CADD DESIGN "RASTER IMAGES," WORDPERFECT DOCUMENTS AND IBM MAINFRAME REPORTS, WHICH ALL MAKE UP A CONTRACT PROPOSAL. WITH A HIGH SPEED DIGITAL COPIER ATTACHED TO OUR DATA NETWORK, WE WILL MOVE FROM TRADITIONAL PRINTING TO DOCUMENT DESIGN AND MANAGEMENT PROCESSES.

DATA COLLECTION SYSTEMS. MDT HAS IMPLEMENTED BAR-CODING SCANNERS AND FORMS SCANNING EQUIPMENT AND WILL BE UPGRADING THESE CAPABILITIES. GLOBAL POSITIONING SYSTEM (SATELLITE) DATA COLLECTORS HAVE ALSO BEEN PURCHASED FOR COLLECTING SURVEY INFORMATION AND WE SEE EXPANDING USE OF THIS TECHNOLOGY AS WELL.

MULTI-MEDIA. INFRASTRUCTURE MANAGEMENT SYSTEMS INCORPORATE STILL AND VIDEO IMAGES WITHIN THEIR DATA BASE MANAGEMENT REQUIREMENTS. THIS ALLOWS USE OF VISUAL IMAGES ALONG WITH TRADITIONAL DATA FOR SUPPORT OF DIVERSE ACTIVITIES LIKE TRAFFIC DESIGN, SAFETY DESIGN AND TORT LITIGATION NEEDS.

MOBILE COMPUTING. THE GPS SYSTEMS (MENTIONED EARLIER) ARE A FORM OF MOBILE COMPUTING—DATA CAN BE COLLECTED AS WE DRIVE ALONG THE HIGHWAYS, FOR EXAMPLE.

LONG DISTANCE LEARNING. INTERACTIVE TELECOMMUNICATIONS CAPABILITIES WILL GROW THROUGH THE STATE METNET AND A NEW, CONNECTED SYSTEM DEVELOPED IN COOPERATION WITH FHWA'S REGION EIGHT HEADQUARTERS IN DENVER. USE WILL CENTER ON EDUCATIONAL REQUIREMENTS OF EMPLOYEES, IMPROVED COMMUNICATIONS AND SAVINGS THROUGH REDUCED TRAVEL TIME.

DIAL-IN ACCESS TO COMPUTER NETWORKS. DIAL-UP ACCESS TO OUR LOCAL COMPUTER SYSTEMS WILL LIKELY INCREASE TO APPROXIMATELY 5,000 CALLS PER MONTH. IT'S USED BY CONTRACTORS, POTENTIAL CONTRACTORS, FIELD CONSTRUCTION PROJECT MANAGERS, RIGHT OF WAY AGENTS CONDUCTING NEGOTIATIONS, AUDITORS PERFORMING MOTOR FUELS AUDITS, AND STAFF USING ELECTRONIC MAIL, CALENDARS AND DATABASES WHILE AWAY FROM THE OFFICE. MDT ALSO SUPPORTS A DIAL-OUT CAPABILITY TO FAX DOCUMENTS FROM ANY ATTACHED DEVICE OR DIAL INTO ANOTHER COMPUTER SYSTEM. ROAD CONDITION REPORTS, WEATHER REPORTS AND NEWS RELEASES ARE DISTRIBUTED USING THESE SYSTEMS, WITH USE EXPANDING AS NEEDS ARISE.

PROTOCOL GATEWAYS (E.G. UNIX TO NETWARE): REQUIREMENTS FOR PROTOCOL CONVERSIONS (TRANSLATIONS BETWEEN COMPUTERS USING DIFFERENT LANGUAGES) ARE BEING SATISFIED. MDT SUPPORTS DECNET CONNECTIVITY (VMS,UNIX) SNA(MVS) AND PATHWORKS CONNECTIVITY SERVICES TO APPLE MACINTOSH. NETWARE (THRU IPX/SPX), UNIX AND VMS (THRU EITHER DECNET OR TCP/IP).

LEGISLATIVE ISSUES

LONG-STANDING INTEREST IN THE ECONOMIC BENEFITS A SCENIC BYWAYS PROGRAM COULD BRING LED TO A FEDERALLY-FUNDED STUDY. LEGISLATION BEING PROPOSED AS A RESULT WOULD ESTABLISH THE "BIG SKY BYWAYS &BACKWAYS PROGRAM."

Scenic Byways Program

Although Montana has many beautiful highways deserving of special recognition, Montana is one of only a handful of states without a scenic byways program. But Montanans may soon have a state scenic byways program as a result of a recently completed feasibility study.

Past efforts to develop such a program faltered due to concerns over management costs and the implications a scenic designation would have on other activities, such as road improvements, maintenance, signing, and the like.

The recent study was funded through a special program established by ISTEA. MDT pursued the grant because of long-standing interest in the economic benefits a scenic byways program could bring to the state. The federal grant was an opportunity to finally address the issues and concerns.

An advisory committee made up of tourism industry representatives, agricultural and business organizations, tribal interests, environmental interests, local and state elected officials, and other state and federal agencies, was central to the effort. The comprehensive study looked at the experiences of other states with existing programs, analyzed costs and benefits of a state program, and developed model program procedures and selection criteria.

Based on the results of the study, the department has developed legislation that would give MDT and the Highway Commission the authority to develop a "Big Sky Byways & Backways Program" with these major components:

- A two-tiered program of byways and backways to best showcase Montana's diverse scenic, historic, and cultural qualities and provide benefits to more areas of the state.
- Nominations must demonstrate strong local landowner, government and public support and a long-term commitment to protect and enhance the qualities of the route.
- Designations would require the approval of the agency responsible for the operation and maintenance of the route.
- Designation wouldn't impose restrictions on construction and maintenance of the transportation system.

If approved by the Legislature, the department would develop the program using the remaining federal grant funds. The program would be designed to encourage visitors to "stay a little longer" to enjoy more of what Montana has to offer.

A Montana Transportation Commission

MDT is proposing legislation to eliminate the Montana Highway Commission and create a Montana Transportation Commission in its place.

The need to develop an integrated transportation system was one of the principal reasons the 52nd Legislature acted to create the Department of Transportation. Transportation in Montana depends on a vast system of facilities and operations including roads, bridges, railroads, buses, airports, intermodal facilities, and bike and pedestrian walkways. Because no one type or "mode" of transportation can accommodate all of our mobility and community access needs, Montana is best served by an integrated system that includes all of the various modes. And establishing a Transportation Commission in Montana can help achieve such integration.

MDT staff investigated the structure and authority of decision-making commissions in twenty-one other state departments of transportation. As a result of this inquiry, comments received from the public and in-depth discussions with the Highway Commission, a proposal was put forward to eliminate the Montana Highway Commission and to create a Montana Transportation Commission in its place.

The Transportation Commission proposal includes elements modeled after the "typical" state transportation commission identified in our survey. It very carefully avoids either growth or greater complexity in state government.

Characteristics of MDT's proposal to create a Montana Transportation Commission include:

- Five members appointed by the governor from the northwest, southwest, north central, south central and eastern regions of the state.
- In addition to the existing authority as regards the Highway Program, the Montana Transportation Commission would also be responsible and have authority over Federal Transit, Local Rail Freight Assistance and other federal transportation funds passed through the MDT and for all funds transferred between the Highway and Transit programs.

Truly intermodal decision-making may be inhibited by the structure and authority of the existing Highway Commission. The current Highway Commission has authority over the highway portion of the program, but there is no decision-making body empowered to make decisions about other transportation program expenditures or on multimodal or intermodal strategies.

ISTEA requires states to coordinate transportation between all modes and to consider non-traditional alternatives for the expenditure of highway program funds. Examples include park-and-ride lots or capital investments in transit.

In response, transportation planning has now been organized to further enhance intermodal and multimodal decision-making. TranPlan 21, an integrated transportation plan, will meet federal requirements and will provide the state with a direction for transportation decision-making into the next century. (See page 6.)

THE NEED TO DEVELOP AN INTEGRATED TRANSPORTATION SYSTEM WAS ONE OF THE PRINCIPAL REASONS THE LEGISLATURE CREATED THE DEPARTMENT OF TRANSPORTATION.

While this plan helps further both state and federal interests, the creation of a Montana Transportation Commission can best enhance integration, coordination and efficiency.

Motor Carrier Legislation

Motor Carrier Services legislation for the 54th Legislative Session includes introduction of a law to amend gross vehicle weight fees and legislation to provide staggered registration for interstate commercial vehicles.

Major revisions in GVW fee law in 1993 adversely affected pickup truck owners, but changes to the gross vehicle weight fees will address the problem. By providing a date other than January for registration, interstate motor carriers can pay registration fees at other times during the year. This legislation will allow the trucking industry to make more efficient use of cash flow and even out the work load for the people who are handling the paperwork.

Speed Zone Setting

Speed zones pose a difficult challenge for both the Legislature, MDT and the Montana Highway Commission.

In the 1991 Legislature, local authorities' jurisdiction to alter speed limits was expanded in cases involving school zones and designated school crosswalks. That authority was expanded in 1993 to include senior citizen centers and allows lower speed limits—lower than what would normally be established by a traffic and engineering investigation.

CAUTION IS WARRANTED IN ANY ATTEMPT TO SET ARBITRARILY-LOW SPEED LIMITS.

Both these changes were in response to public dissatisfaction with the department's speed zone setting practice. Montana law assigns responsibility to the Montana Highway Commission for establishing speed zones on state highways (61-8-303 MCA). And the Commission works with the engineering staff to set speed zones based on widely-accepted, long-standing methods.

We recognize the public dissatisfaction with the current practice, and the department is committed to doing what it can to accommodate citizens' wants. At the same time, we feel compelled to recommend speed limits in accord with widely-accepted practice. Setting speed limits contrary to the practice supported by the Federal Highway Administration and the Institute of Traffic Engineers could potentially *decrease* safety and increase the state's exposure to liability.

Our desire is to improve safety and be responsive. Speed zones that are set arbitrarily low are often less safe than higher speed limits that are set based on sound traffic engineering principals.

So we're looking to other state DOTs, FHWA and some non-traditional sources for ideas. One non-traditional approach has to do with a concept called "traffic calming." Such an approach may be workable in Montana and it's our hope a combination of measures can lead to results we can all be satisfied with.

In the meantime, caution is warranted in any attempt to expand the authority of local officials to set arbitrarily-low speed limits. Experience shows they don't work, and safety will actually be decreased.

Billings-Great Falls Highway

The 53rd Legislature asked the department to prepare a written report on the condition of the highway between Billings and Great Falls. The report is to include information on recent and planned improvements to the route.

The report, which will be provided to the Legislature in December, will provide detailed information on roadway characteristics and condition, traffic and accident rates, costs of various design options, and possible non-construction options to improve the operation of the route.

In developing the report, the department is coordinating with two other recent efforts which dealt with some of the same issues of concern. Both TranPlan 21, Montana's first statewide intermodal transportation plan, and the report of the Governor's Trade Advisory Council, addressed economic development and freight movements in relation to highway improvements, especially in consideration of recent NAFTA developments. Based on testimony received at several regional meetings, the Council is recommending the department continue with its current level of planned improvements on the Billings-Great Falls Highway.

MDT will continue to address the needs of this important highway through its statewide planning and programming process. In accordance with the recommendations of the Governor's Trade Advisory Council, the department will also present informational sessions in both Great Falls and Billings to explain funding issues affecting this route. In addition, we will continue to work with the congressional delegation and neighboring states to ensure that new federal programs produce a net benefit to Montana and the region for our NAFTA corridors.

Copies of the report are available from the Department of Transportation, Director's Office.

FINANCING MDT

The "2006" Plan

Work on Montana's highways is funded primarily by taxes on gasoline and diesel. Our objective is to manage the program through Fiscal Year 2006 maintaining the current fuel tax levels. Fiscal Year 2006 completes the repayment of the highway revenue bonds, and if operating cash is sufficient through that time, there should be several more years before any tax increase is necessary.

Meeting this objective is realistic in light of recent increases in diesel fuel revenue. The increase is primarily from legislative changes, compliance monitoring, and enforcement that has sharply reduced tax evasion. Diesel fuel revenue for fiscal year '95 is expected to be up about 75 percent over '93.

Federal obligation authority—spending authority—has risen from $111.5 million in 1990 to an anticipated $160 million in 1996. This requires an increase in state funds of approximately $6.8 million to match available federal funds (which has consistently been our objective).

Funds will also be set aside to draw interest in escrow, anticipating those dates when bonds can be "called" for earlier-than-anticipated buy-back. The result is substantial savings in interest payments.

In addition to matching all available funds and moving more quickly to pay off bonds, construction through the state Reconstruction Trust Fund program will grow in increments to get more useful life from roads that are in generally good shape.

This plan will allow the department to manage and preserve the investment in transportation infrastructure more effectively and assure long-term financial stability for the program. Placing funds in escrow now for future retirement of bonds smooths out cash flow and frees up cash in those future years when projects will be ready for construction.

The Governor's Office of Budget and Program Planning has proposed to transfer the funding of the Montana Highway Patrol to a source other than the Highway Special Revenue Account after Fiscal Year '97, and to discontinue the receipt of Coal Tax Funds into the account. These proposals, along with maintaining other expenditures at current levels, will maintain sufficient cash balance through fiscal year 2006 without any fuel tax increase.

Funding Construction and Maintenance

The federal-aid highway program operates on a reimbursement basis. State match is required for every federal dollar spent. The federal/state participation ratios are currently averaging approximately 87 percent federal/13 percent state.

Montana receives a higher federal participation percentage by maintaining a "minimum level of maintenance for pavement preservation". Five million dollars of the Reconstruction Trust Fund (RTF) is dedicated for this purpose. Without this level of maintenance, the average federal participation rate would drop to about 83 percent, requiring more state funding to maintain the same level of federal funds.

Maintenance of Montana's highway system—plowing and sanding, patching and sealing, and roadside maintenance—is funded with state revenue only. The cost of maintaining Montana's highways has escalated over the past decade, largely due to federal and state environmental requirements, pavement preservation needs, and other federal requirements. Wider roads and additional safety features also increase maintenance requirements.

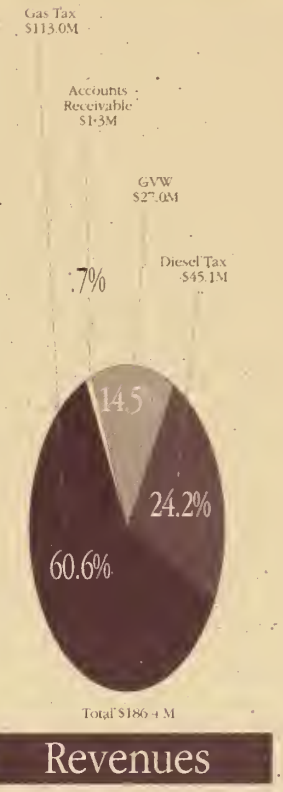
Montana's long-range financial plan calls for a "level of maintenance" sufficient to ensure continuation of the most-favorable federal match ratio. It makes the most of state fuel taxes and user fees.

Federal Fund Distribution in Montana

Before ISTEA, Montana and the other states received federal highway funding through formulas for each system including the primary, secondary and urban systems. These formulas were based on factors such as land area, lane miles and population.

With ISTEA, these formulas were eliminated, with only the Bridge and Interstate maintenance programs retained (see chart on next page).

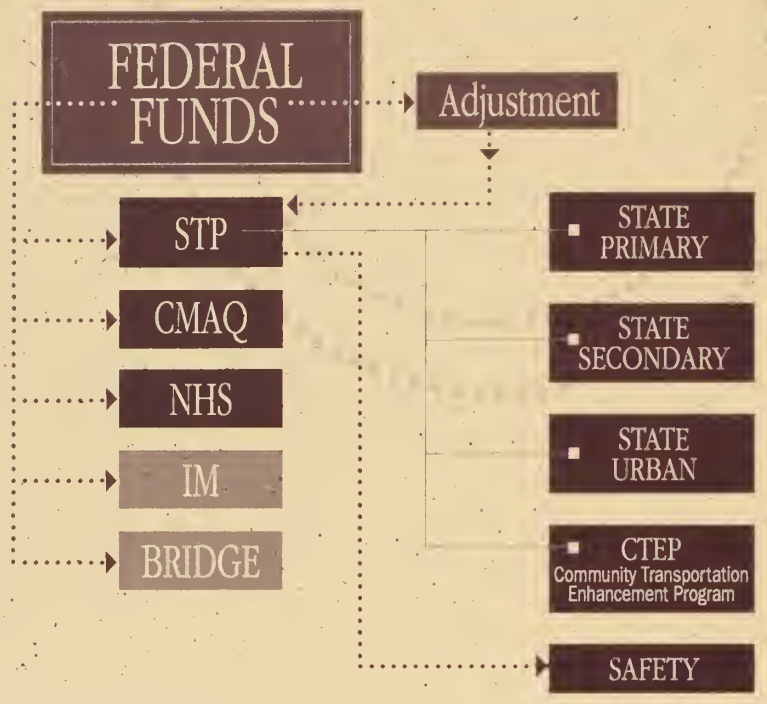
1995 State Special Revenue Funds



Revenues

Disbursements

Montana's Federal Highway Funding Distribution



Virtually all other programs are received in the state as a minimum guarantee. That is, we're guaranteed a percentage of the National Highway (NHS) and Surface Transportation Program (STP) equal to the percentage of the core categories in the former federal program. Because other new categories in the federal program affect the overall distribution, Montana also receives funding under a "hold-harmless" adjustment. This adds funding to the STP category to guarantee Montana .97 percent of the federal program.

These guarantees and adjustments were in fact a last-minute compromise by Congress before ISTEA was passed. So we expect to see the issue of federal funding formulas raised in the next authorization. In light of the focus on traffic volume by the US DOT in its National Transportation proposals, revisiting federal distribution formulas may be problematic for Montana and other rural states.

The Surface Transportation Program (STP) is the program created under ISTEA to replace the former primary, secondary and urban programs. ISTEA not only eliminated those programs, but the federal government discouraged states from sub-allocating Surface Transportation Program funds to cities and counties by formula. MDT and the Highway Commission disagreed and proposed legislation in the last session to continue funding programs that give local governments freedom to address local problems.

From MDT's perspective, the pre-ISTEA system ensured that the most pressing highway needs in each area of the state would be addressed. The 53rd Legislature agreed and passed a series of distribution formulas for state primary, secondary and urban systems. The following briefly describes how each of the funding categories is distributed in Montana.

Bridge, Interstate Maintenance, Safety and National Highway System - Projects compete statewide based on engineering and planning evaluations.

Congestion Mitigation Air Quality (CMAQ) - Projects must contribute to the attainment of a national ambient air quality goal. Projects are selected cooperatively through established transportation planning processes.

STP - Primary - Funds are distributed to financial districts based on the relative percentage of deficient and critically deficient miles. Factors that determine deficiency include: pavement condition, ride, safety, traffic volume, traffic mix; no-passing zones, and narrow bridges and shoulders.

STP - Secondary - Sub-allocated to county governments which set the priorities. Sub-allocation factors include: relative percentage of land area, rural population, rural road mileage and rural land values.

STP - Urban - Sub-allocated to urban areas (over 5,000 in population) where priorities are set through established planning processes. Sub-allocation based on relative urban population.

Community Transportation Enhancement Program (CTEP) - Sub-allocated to local governments (all counties and municipalities with over 1,000 population) who set priorities. Sub-allocation is based on relative population for each jurisdiction.

Fuel Tax and Indian Tribes

The 1991 Legislature directed the department to negotiate with tribal governments on the seven Montana Indian Reservations to refund gasoline motor fuel taxes. This legislation was intended to avoid costly and time-consuming litigation concerning the state's ability to impose fuel taxes on enrolled tribal members living on a reservation.

The Department of Transportation and the Department of Revenue have entered into negotiations with tribal governments as a "package" of motor fuel tax refunds, alcohol tax refunds and cigarette quotas. The Governor or a designee has the authority to approve the agreements, and the Attorney General reviews and approves the agreements for legal content only. The Legislative Revenue Oversight Committee reviews the Agreements.

The 1993 Legislature enacted significant changes to the State Tribal Cooperative Agreements Act affecting agreements reached after July 1, 1993. The primary change related to the requirement to hold a public meeting on the affected reservation.

As of July 1, 1994 the Department of Transportation has signed agreements with several Tribal Governments:

- Fort Peck
- Fort Belknap
- Rocky Boy's
- Crow
- Northern Cheyenne

Several negotiation sessions were held with the Blackfeet Reservation, and preliminary discussions were held with the Flathead Reservation.

As of June 30, 1994, and since the inception of the legislation, the department has refunded $3.3 million.

MDT is involved in several cases of litigation by individual tribal members disputing the State of Montana's right to apply a motor fuel tax upon Tribal members on a reservation. Those cases range from appeals to the department to district court litigation. As of August 1, 1994 there have been no concluding rulings related to this issue.

Rail Funding

ISTEA excluded freight and rural passenger rail projects from funding, leaving the Rail Program dependent on a mere $36,000 in federal grants annually for rail planning activities. This, matched with 30 percent state funds, provides the basis for the department's rail program.

Construction and rehabilitation of branch line track was aided in the past by the federal program. But new project funding comes from nationally-competitive "discretionary" grants under a very small appropriation recently approved by Congress.

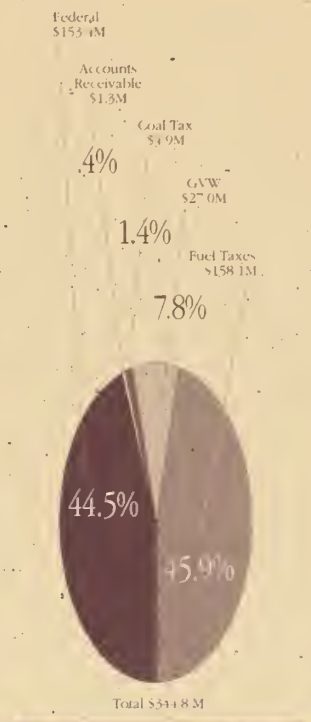
Montana has yet to qualify. To be eligible, a state must have spent all prior program funds. Montana has approximately $600,000 not yet committed to a project, the only significant resource available for railroad track construction or rehabilitation in Montana.

Reduced funding for the program and concern for its survival suggests a difficult question: Should Montana implement a state program to expand funding for rail construction/rehabilitation projects, or purchase branch lines? An expanded program will require other funding sources, since federal funding is extremely limited.

Transit Funding

The Transportation Planning Division receives approximately $1.1 million per year from the Federal Transit Administration to assist local public transit activities in Montana. Local communities/agencies provide the matching funds, which vary from operating assistance at 50 percent, to purchase of vehicles at 30 percent, and transit planning activities at 20 percent. The state provides about $20,000 to match the federal funds used to administer the transit programs.

Highway Program
1995 State & Federal Funds



Revenues

Disbursements

Aeronautics Program Funding

The Aeronautics Division is primarily supported by a state aviation fuel tax of three cents per gallon. Of the three cents, one cent is used to fund an airport loan program and one cent funds the airport grant program. (Scheduled passenger air carriers and Montana refineries selling fuel to the federal defense fuel supply center are either exempt or eligible for a rebate of this portion of the tax.)

AERONAUTICS OPERATES THE YELLOWSTONE AIRPORT, ONE OF TWO DESIGNATED BY CONGRESS TO SERVE NATIONAL PARKS.

These programs return approximately $170,000 annually to Montana airport sponsors for planning and development projects. (Loans and grants must be approved by the Aeronautics Board.)

A small amount of federal grant authority is used to maintain and update the Montana Aviation System Plan annually.

Each year Aeronautics collects approximately $260,000 in pilot and aircraft registration fees. Ninety percent of the aircraft registration fee is returned to the county where the aircraft is based. The remainder is used by the division for administering and enforcing aircraft registration.

The annual $10 pilot registration fee is retained by Aeronautics for administration purposes and a subscription to the division's monthly newsletter, *Montana and the Sky*.

Although there's been a considerable decline in the Aeronautics special revenue balance over the past two decades, expenditures are kept in line with revenue. Program goals and objectives are met without spending the full $1 million budgeted ($857,900 earmarked, $73,600 federal, $68,500 proprietary funds). The 1995 biennium budget holds expenditures in the program to approximately the level of estimated revenue.

Aeronautics also operates the Yellowstone Airport, one of two airports designated by Congress to serve national parks, on a proprietary fund basis. Costs are recovered through various user fees.

AERONAUTICS PROVIDES SUPPORT TO THE GOVERNOR'S ESSENTIAL AIR SERVICE TASK FORCE AND THE GOVERNOR'S CANADA MONTANA AIR SERVICE TASK FORCE. BILLINGS LOGAN INTERNATIONAL AIRPORT. MICHAEL CRUMMETT PHOTO.

MODAL REPORTS

Aeronautics

The Aeronautics Division promotes safety in aeronautics, provides for uniformity in laws and regulations, and cooperates with federal authorities in developing a national system of civil aviation. Supervised by an administrator and the Director of Transportation, Aeronautics is advised by a nine-member Aeronautics Board, representing the various facets of the industry.

The Aeronautics Division manages twelve state-owned airports. They are also responsible for an air navigation aid system consisting of 25 non-directional radio beacons that provide instrument approaches into several commercial service airports across the state. In addition, they provide a network of 18 lighted beacons in mountainous western Montana to enable visual navigation after dark.

Aeronautics provides statewide weather information for pilots through a "Weather-Mation" satellite system located in Helena and Miles City. This system is being expanded and is desperately needed due to the closures of six of the eight Montana Flight Service Stations. It provides weather briefing and flight planning for pilots.

Aeronautics maintains 65 air-to-ground radio stations (unicoms) on airports throughout Montana.

Aeronautics is designated by the Federal Aviation Administration as a National Aviation Education Resource Center. The division is involved in a broad range of programs and training:

- Organizing and conducting various seminars to educate pilots, flight instructors, air search volunteers, aviation mechanics, school teachers and children.
- Providing technical support to communities for airport improvement projects.
- Fulfilling the agreement with the US Air Force Rescue Coordination Center to provide aerial search and rescue services for Montana and is the approving agency for Veteran's Administration flight schools.
- The annual aviation conference for all facets of Montana's aviation community is coordinated and co-hosted by the Division.
- Aeronautics provides support to the Governor's Essential Air Service Task Force to ensure commercial air service to communities throughout Montana and to the Governor's Canada/Montana Air Service Task Force.
- Aeronautics publishes an annual airport directory depicting all Montana public use airports and an updated aeronautical chart listing all Montana airports, public and private, navigational facilities, terrain, routes of flight, etc., every four years.
- Aeronautics maintains and updates the Montana Aviation System Plan to provide information for the development of Montana airports, planning, forecasting, costs, etc.
- The National Association of State Aviation Officials (NASAO) and the FAA contract with the Division for up to 114 safety inspections of Montana public use airports each year. All Division inspectors have received training from the FAA and NASAO.

MIKE FERGUSON, ADMINISTRATOR OF THE AERONAUTICS DIVISION (LEFT), AND HARRY SKROMEDA, CANADIAN DEPARTMENT OF TRANSPORT, AT ROSS INTERNATIONAL AIRSTRIP, SWEETGRASS MONTANA/COUTTS, ALBERTA. FERGUSON WAS HONORED THIS YEAR BY THE NATIONAL ASSOCIATION OF AVIATION OFFICIALS WITH THE "AMBASSADOR OF STATE AVIATION" AWARD.

Plans for the coming biennium include strengthening the search and rescue program by providing additional training for volunteers and funding for more Emergency Locator Transmitter (ELT) homing radios.

Aeronautics will also be conducting Navigational Aids training schools for electronic technicians responsible for state's non-directional radio beacons, involving FAA personnel, factory technicians, and other state "navaids" technicians.

Rail

The Rail Section staff work with the rail industry, Montana shippers and the Federal Railroad Administration to optimize rail service in Montana. Included in this responsibility is to:

- be a technical resource for rail-related issues and questions;
- maintain a state rail plan containing information on the "health" of the rail network;
- support intermodal efforts and other multimodal activities.

The Transportation Planning Division has a rail safety program to monitor 1,550 public rail crossings in Montana. Projects are currently underway to improve safety at 40 crossings with a budget of approximately $1 million.

In June, 1993, MDT published the 1993 Montana Rail Plan Update. The Update identifies potential rail projects for construction/rehabilitation and includes a comprehensive analyses of the rail freight and passenger network.

One element of TranPlan (see page 6) is an analysis of the state's rail and intermodal facilities, as well as short and long-range needs for both the freight and passenger railroad systems.

Rail section staff provide expert witness support in the McCarty Farms Litigation case, monitor ICC activities relating to abandonments, railroad mergers, rail car shortages (on a limited basis), and maintain rail passenger ridership statistics.

BURLINGTON NORTHERN TRAIN PASSING THROUGH MACON, MONTANA AT -30°. MICHAEL CRUMMETT PHOTO.

Transit

The purpose of the Transit Section is to assist communities to establish and maintain public and private (non-profit) passenger transportation systems.

The goals of the Transit Section are to:

- implement ISTEA as it relates to transit programs,
- promote and facilitate passenger transportation throughout the state,
- provide funding to local transit programs for capital and planning projects, operating assistance, and training programs. The Transit Section works with the Highway Division when new or expanded highway projects are planned to ensure transit alternatives are fully considered.

The transit section coordinates with about 100 community agencies and monitors about 150 vehicles (secured with federal grants). Many of these programs serve senior citizens and people with disabilities.

The Transit Section staff conducts transit management reviews and administers a vehicle rehabilitation program through a partnership arrangement with the state prison.

Other activities include:

- **Coordination and agreements with the Department of Social and Rehabilitative Services** for the purchase of vehicles and related equipment.
- **Establishment of a training program for local transit operations**. Over 300 transit employees have been trained.
- **A state "Bus Roadeo"** is held annually for transit drivers.
- **On-site technical assistance visits and vehicle inspections** are performed in over 60 communities annually and 46 management review have been conducted.
- **A drug kit was developed** to assist transit agencies in establishing their mandatory drug programs. This is currently being updated to reflect the Federal Transit Administration's Drug and Alcohol Final Rules. The drug kit developed in Montana is marketed nationally and has drawn wide acclaim in the industry.

THE BILLINGS CITY BUS SYSTEM LOGS ABOUT 2.4 MILLION PASSENGER MILES EACH YEAR, HELPING TO DECREASE AUTO TRAVEL AND VEHICLE EMISSIONS. MICHAEL CRUMMETT PHOTO

The Urban Section is responsible for the administration of federal and state programs to provide technical and financial support. These programs are designed to assist in the development and implementation of transportation local plans and programs in Montana's 14 urban areas. The section is to coordinate and maintain an effective comprehensive program for continuing transportation planning in cooperation with local jurisdictions.

SERVICES TO MONTANA'S URBAN AREAS INCLUDE AIR QUALITY ANALYSIS, TRANSPORTATION MODELING & TRAFFIC FORECASTING.

In the three largest urban areas, where planning is mandated by federal law, the urban section administers the federal and state planning funds allocated to the Metropolitan Planning Organizations. Administrative services consist of assistance in the development of unified planning work programs, transportation improvement programs and long range transportation plans. Other duties include preparation and development of fiscal and program information for Section Eight Transit Grants for Missoula, Great Falls, and Billings.

Additional services provided to all urban areas includes technical assistance in transportation modeling, traffic forecasting, and air quality analysis. The section administers the bicycle-pedestrian program which offers technical assistance in the planning, programming, and design of non-motorized facilities.

Motor Carrier Services

The Motor Carrier Services (MCS) Division is responsible for enforcing commercial vehicle weight and dimension laws, licensing, permitting, and fee collection on motor transport and fuel taxes.

Fees collected for size and weight permits, GVW licensing, fines and other state jurisdictions total about $25 million per year.

Activity in Motor Carriers Services has focused on improved service and improved efficiency.

COOPERATION AMONG GOVERNMENT AGENCIES IS INCREASINGLY IMPORTANT AS WE ADAPT TO CHANGING TIMES. PORT OF RAYMOND NEAR PLENTYWOOD, ONE OF TWO TWENTY-FOUR HOUR BORDER CROSSINGS WITH CANADA. MICHAEL CRUMMETT PHOTO.

- Programming, installation, and training to computerize the state's weigh stations will be completed in December, with the goal of a fully-automated permit and information system.
- The permit program will eliminate expensive wire service charges and delays for the trucking industry. Also readily available permit information will increase the effectiveness of the compliance program.
- The Helena permit system is operational and provides more efficient access to permits for our customers.
- A regional over-size permit agreement has been established with six western states. This agreement was made possible by legislation passed in the 1991 session and has streamlined permit applications for multi-state travel. This agreement allowed carriers to purchase a single dimensional permit at one location for travel over specific routes in all member states. Currently Arizona, Idaho, Washington, Oregon, Nevada and Montana are members, with several more states preparing to join.
- Permit service to incoming over-dimensional loads was increased to 24 hours per day, without any increase in staffing.
- An agreement negotiated with Alberta allows increased truck weights between Shelby and the border to enhance the development of Shelby's intermodal facility.
- Work continues on a committee at the National level to develop and implement a uniform system for registration and permitting of hazardous materials transporters.

One piece of legislation needed in 1993 would be to allow the Director to appoint other states' employees as peace officers for Montana. This authority would provide more effective joint ports, and allow reciprocity as agreements are established with other jurisdictions.

As a result of successful joint operations at Coutts with Canada and with Idaho officials at Haugen, negotiations are being conducted to include a facility with North Dakota. At this time an agreement is near on a joint facility at Wibaux. This type of joint facility has reduced costs to the trucking industry and to the State of Montana.

Highways

Montana has seen a great deal of progress in improving our highway system over the past several years. Most visible are the projects which have been let to contract and built. Less visible is the substantial progress in planning and engineering activity which will soon produce additional improved or new miles of highway.

Accomplishments in the Missoula District include the completion of the Reserve Street project. This five-lane concrete facility significantly reduced congestion on Missoula's west side and provides some relief for Missoula's other busy arterial. The project has, however, accented the need to reconstruct North Reserve Street to provide the same level of service for a rapidly developing commercial area. When the Missoula community became aware that reconstruction of this section was many years off due to state and federal funding limitations, they initiated an effort to raise local funds to accelerate it. It now appears a partnership consisting of Federal, State, County, City and private funds may advance construction to Fiscal Year 1997.

Two bridge projects of major significance to the Flathead Valley were opened to traffic this fall. A new bridge over the Flathead River on MT-35 just east of Kalispell replaced an old and rapidly deteriorating bridge. Reconstruction of the new roadway out to Creston will start next spring. A new viaduct over the BNRR greatly improved safety and traffic flow to the north side of Whitefish and to Big Mountain.

JOINT PORT AGREEMENTS WITH NEIGHBORING GOVERNMENTS REDUCE COSTS TO THE TRUCKING INDUSTRY & MONTANA.

The last segments of MT 200 between Missoula and Lincoln were reconstructed during this biennium, making this scenic trip also a safe and pleasurable one. The segment from Lincoln to Helmville Junction was completed last fall, and the Clearwater Junction - West portion was just recently completed.

Considerable emphasis was placed on pavement preservation during this time period. On I 90, 51 miles were resurfaced in the Superior and Clinton to Drummond areas. On the State highway system, over 133 miles were paved, and an additional 77 miles were chip-sealed. Using "Save Our Secondaries" funds, 25 miles of county roads were overlaid and 64 miles were chip sealed.

ABOUT 15 MILES OF THE BEARTOOTH HIGHWAY WAS PAVED, NEW GUARDRAIL WAS INSTALLED, AND THE VISTA POINT SCENIC OVERLOOK WAS RECONSTRUCTED.

The big accomplishment in the Butte District is completion of Bozeman's North 19th Avenue interchange this fall, with the remaining portion of North 19th Avenue being completed next summer.

This new facility will significantly reduce congestion on North 7th and will make it easier to reach Montana State University. Also, with the completion of a new overpass on Secondary 205 over the railroad tracks north of the Bozeman City Limits, the new alignment and wider structure have improved safety for motorists.

Two major highway segments totaling 13.5 miles were reconstructed—north of Dillon on Montana 41 and Ennis north to McAllister on US 287.

On I 90 from Three Forks to Manhatten 10 miles of existing concrete pavement was "cracked and seated," then paved with more typical plant-mix paving ("asphalt"). This work improved the ride considerably on this stretch of road.

In Anaconda, the department and the city worked closely to allow the city time to install a new water system on Park Street and Commercial Avenue, prior to the Department repaving from the I 15 interchange west through the town of Anaconda.

The Great Falls district recently completed two cooperative projects. Working with the city of Choteau, the department has reconstructed a section of US 89 to accommodate a parking lot at the city's museum and new visitors' center, which also serves as a rest area for highway travelers.

In another cooperative project, a bicycle and pedestrian trail was built alongside MT 66 within the Fort Belknap Reservation. This trail, which was the first in the district constructed in a rural area, was a part of the contract for reconstructing over 16 miles of US 2 east of the town of Fort Belknap.

Emphasis was on recycling on another two projects. On about 17 miles of US 87 near Fort Benton, the existing road surface was milled, screened, and crushed by using an in-place cold recycling train, then re-layed on the roadway. Because the existing surface was removed down to the base, underlying problems such as cracks and other pavement imperfections were corrected. In addition, since the surface processing takes place directly on the roadway and new material is not hauled to the site, cold recycling is more cost-effective than other, more traditional, reconstruction methods.

The existing surface was also recycled on MT 200 over Rogers Pass. On this project, the existing surface was crushed to become the new base and new pavement, mixed with some recycled material, was placed over the top.

Almost 125 miles of roads were resurfaced in the Great Falls district during the last two years. In addition, the Great Falls and Havre maintenance divisions resurfaced approximately 120 more miles of roadway during the same period of time.

Projects along three routes in the Glendive District are particularly noteworthy. On US 212 a 16.5 mile long project northwest of Hammond was completed. This project involved using the existing pavement by pulverizing the existing surfacing and adding cement. The mixture was then relayed and compacted to provide a cement-treated base material that was later paved.

Another project extending from Ashland to 8.1 miles west of Ashland is under contract and will be completed within a year. As this route is improved, truck traffic continues to increase creating an awareness that other sections of roadway on this route need to be reconstructed as soon as practical.

On MT 200, the Jordan West project which is 11.4 miles long was completed this year. On MT 13 between Circle and Wolf Point, the Vida project which is 8.3 miles long will be completed in the near future. With completion of these projects and recently completed adjacent projects comes wider highways with flatter slopes. Several old timber structures have been removed as well, creating a much safer roadway for the public.

A new 1102-foot bridge across the Yellowstone River near Sidney is presently under construction. This bridge will replace the very substandard existing structure. Low clearance as well as narrow width resulted in a relatively high accident rate at the old structure. MDT has coordinated with other agencies, and a boat launching ramp as well as a fishing access ramp will be provided for the public.

The Billings District has addressed a variety of transportation needs from major interchange reconstruction to upgrading a segment of the Beartooth Scenic Highway.

Reconstruction of the West Billings Interchange, I 90, provides a major upgrade to the west entrance to Billings. Improvements will relieve congestion from interstate, commercial, local commercial, and tourist traffic, and free access to the rapidly developing area south of the Interstate.

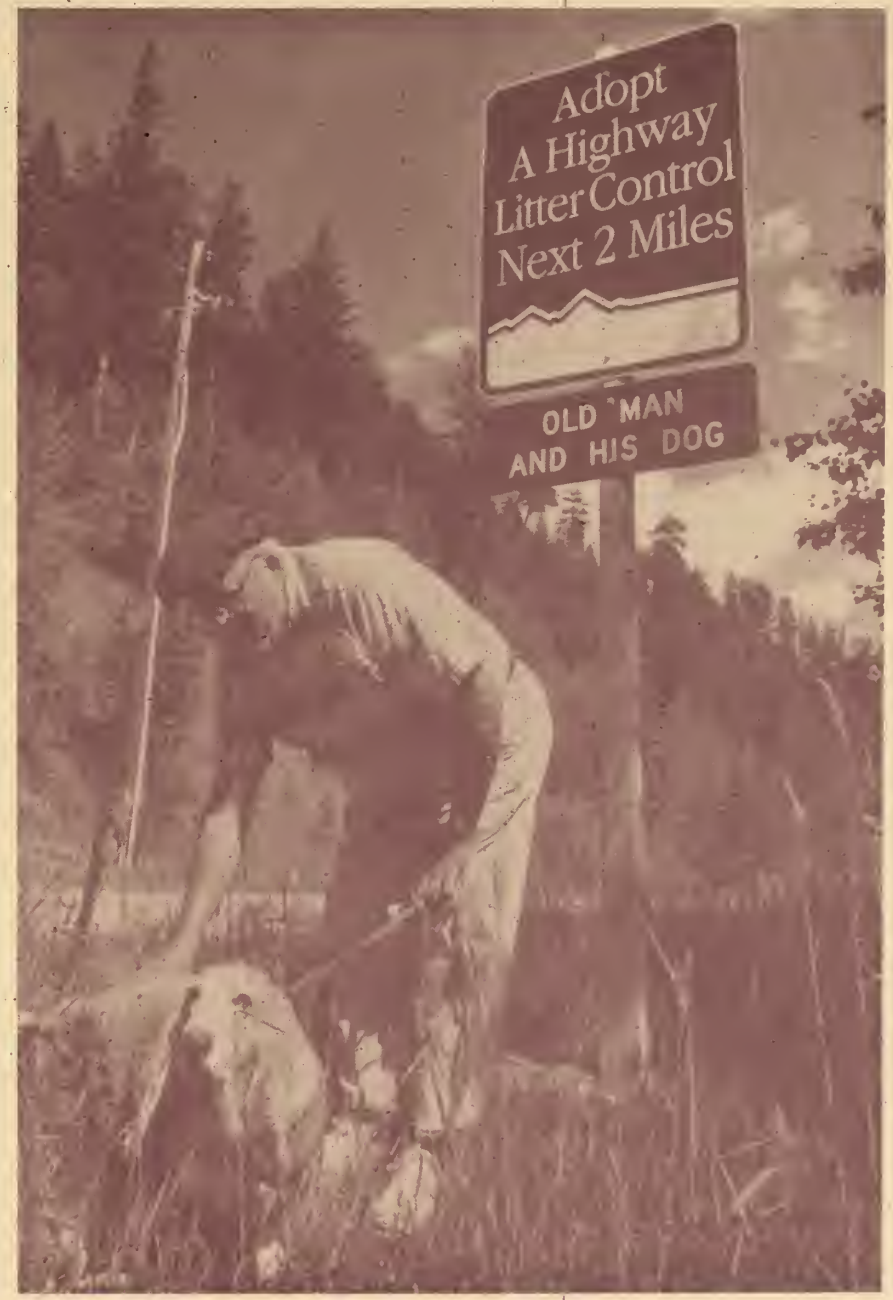
Approximately 15 miles of the Beartooth Highway on the Montana side was paved, new guardrail installed, and the Vista Point scenic overlook reconstructed to include handicapped access and rest room facilities.

The Dick Johnston Bridge (East Bridge) project completes the connection between the east end of the Billings commercial district, the Billings Metra and I 90 at the Lockwood Interchange. To handle the substantial commercial traffic, the road was constructed with durable Portland Cement concrete.

Construction on State Avenue has just begun. When complete, the improvements will ease access for local residents and major traffic generators such as Western Sugar and other transportation oriented businesses.

The highway between Billings and Great Falls has been improved with construction at Broadview, Ryegate, Eddies Corner and Stanford.

Preventive maintenance on both primary and secondary roads in the form of thin lift overlays—low-cost paving—has been a priority this past year in the district. These projects appreciably extend a road's service life.



JEFFERSON JONES AND "JANET" ALONG THEIR LITTER TURF NEAR SWAN LAKE. ALTHOUGH JANET, THE DOG, GETS CREDIT ON THE SIGNS, JONES SAYS SHE STAYS HOME WHILE HE'S DOING CLEANUP. NEARLY 1,600 INDIVIDUALS OR GROUPS HAVE ADOPTED OVER 3,000 MILES OF MONTANA'S HIGHWAYS. PATIA STEPHENS PHOTO COURTESY GREAT FALLS TRIBUNE.

MISSOULA DISTRICT

Upcoming Construction

Projects likely to be under construction prior to or just following the '97 legislative session. (Contract lettings 11-'94 to 6-'97.)

Interstates

	Location	Route	Length	Milepost	Description
A	Tarkio - E	I-90	10.4	64.0 to 74.4	Resurface
B	Alberton - E & W	I-90	7.6	74.4 to 82.2	Resurface
C	Frenchtown - E & W	I-90	10.2	84.2 to 94.4	Rehab Concrete
D	Desmet Interchange	I-90	—	96.3	Rehab Interchange
E	Missoula Airport Intchg	I-90	—	99.4	Interchange ***
F	Bonner - E	I-90	9.2	110.2 to 119.4	Resurface

Other Routes

1	Corvallis - N & S	S-269	6.9	4.8 to 11.7	Widen & Resurface
2	Mullan Road (W Section)	S-263	2.3	3.7 to 6.0	Reconstruct
3	Paradise - E (W Section)	MT-200	3.2	82.3 to 85.5	Reconstruct & Structure
4	Perma Canyon - N	S-382	7.1	3.9 to 11.0	Widen & Resurface
5	Polson - S (S Section)	S-354	1.9	4.1 to 6.0	Reconstruct
6	Missoula Co. Line - N	MT-83	17.4	47.7 to 65.1	Widen & Resurface
7	Polson-Elmo	US-93	12.1	67.2 to 79.3	Resurface
8	Libby - NE	MT-37	9.0	.8 to 9.8	Widen & Resurface
* 9	US-93	US-93	—	—	Reconstruct
10	Eureka-Urban	US-93	3.8	177.0 to 180.8	Reconstruct
11	Foys Canyon Rd	S-503	3.8	3.8 to 7.6	Reconstruct
* 12	US-93	US-93	—	—	Reconstruct
13	Creston - N	MT-35	7.08	40.5 to 48.6	Reconstruct & Structure
14	Desmet-Evaro	US-93	6.3	0 to 6.3	Resurface

Projects proposed after 1997

Two to seven or more years development time is necessary to complete preliminary work. Permitting, design complications, right of way, environmental and funding issues all have a dramatic effect, so no schedule can be truly 'firm' until just prior to contract letting.

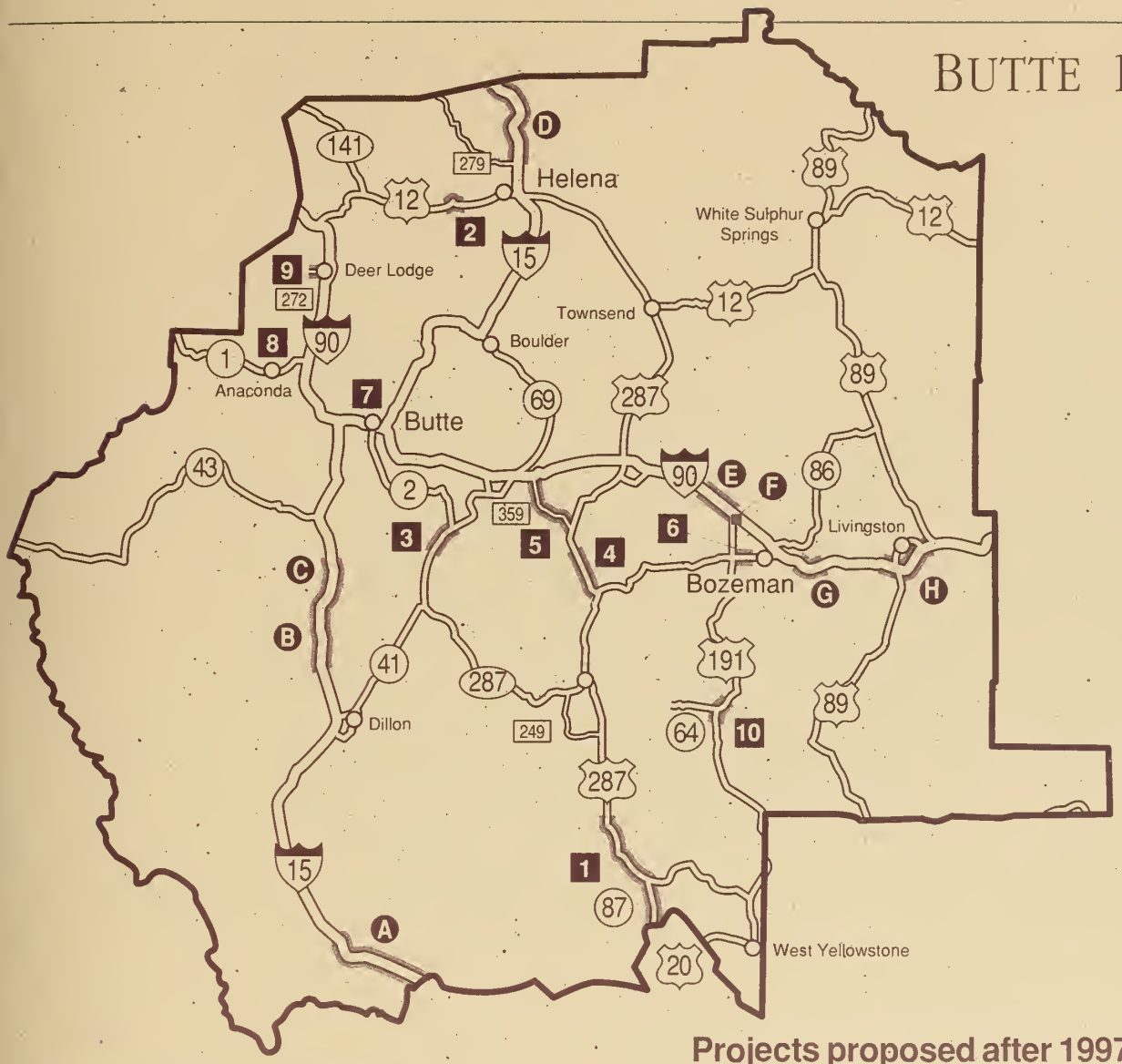
	Route	Location	Length	Description
	MT-35	Creston - S	7.3	Recnstr & Struc
	US-2	Swamp Cr - E	12.2	Reconstruct
	US-2	Happy's Inn - E & W	11.7	Reconstruct
*	US-2	Columbia Heights-Hungry Horse EIS	4.4	EIS Only
*	US-93	Evaro-Polson EIS	52.7	EIS
*	US-93	Somers-Whitefish EIS	28.7	EIS
	MT-200	W of Trout Creek	8.2	Resurface
	MT-200	Dixon - W	10.2	Reconstruct
	MT-200	Dixon-Ravalli Rd	7.3	Reconstruct
	US-93	Sula - N & S	8.0	Reconstruct
*	US-93	Hamilton-Lolo EIS	33.4	EIS
	MT-1	Maxville-Drummond	14.3	Design & R/W
**	US-93	N Reserve St	3.0	Reconstruct
*	I-90	Drummond - E & W	12.7	Resurface

** Projects may be constructed in segments over the years with construction costs to be determined depending on the Environmental Impact Statements.*

*** Subject to local funds being available.*

**** Project development by Missoula County. Project construction contingent upon cost staying within available demonstration funding.*

BUTTE DISTRICT



Upcoming Construction

Projects likely to be under construction prior to or just following the '97 legislative session. (Contract lettings 11-'94 to 6-'97.)

Interstates

	Location	Route	Length	Milepost	Description
A	Monida-Lima	I-15	17.1	.0 to 17.1	Resurface
B	Apex-Glen	I-15	11.2	74.5 to 85.7	Resurface
C	Glen-Melrose	I-15	7.8	85.7 to 93.5	Resurface
D	Lincoln Rd-Sieben	I-15	16.1	200.4 to 216.5	Resurface
E	Manhattan-Belgrade	I-90	11.8	289.3 to 301.1	Rehab Concrete
F	Belgrade Interchange	I-90	—	298.0	Rehab Interchange
G	Rocky Canyon	I-90	5.3	313.0 to 318.3	Resurface
H	Livingston - E & W	I-90	9.5	330.8 to 340.3	Resurface, Snow Fence

Other Routes

1	Raynolds Pass - N	MT-87	8.6	.0 to 8.6	Resurface
		US-287	15.7	8.6 to 24.3	
2	MacDonald Pass - E	US-12	6.5	27.8 to 34.3	Resurface
3	Silver Star - N & S	MT-41	7.0	50.3 to 57.3	Reconstruct
4	Norris-Harrison	US-287	10.0	64.8 to 74.8	Reconstruct & Structure
5	Cardwell-Harrison	S-359	14.5	1.4 to 15.9	Resurface
6	Bozeman-Four Corners	US-191	5.3	82.0 to 87.3	Reconstruct & Structure
7	MT Highland/4 Mile Vue	—	—	—	Reconstruct
8	Anaconda Streets	—	—	—	Reconstruct
9	Westside Prison Rd	S-272	2.1	.0 to 2.1	Reconstruct
10	Gallatin Canyon	US-191	—	—	Safety Work

Projects proposed after 1997

Two to seven or more years development time is necessary to complete preliminary work. Permitting, design complications, right of way, environmental and funding issues all have a dramatic effect, so no schedule can be truly 'firm' until just prior to contract letting.

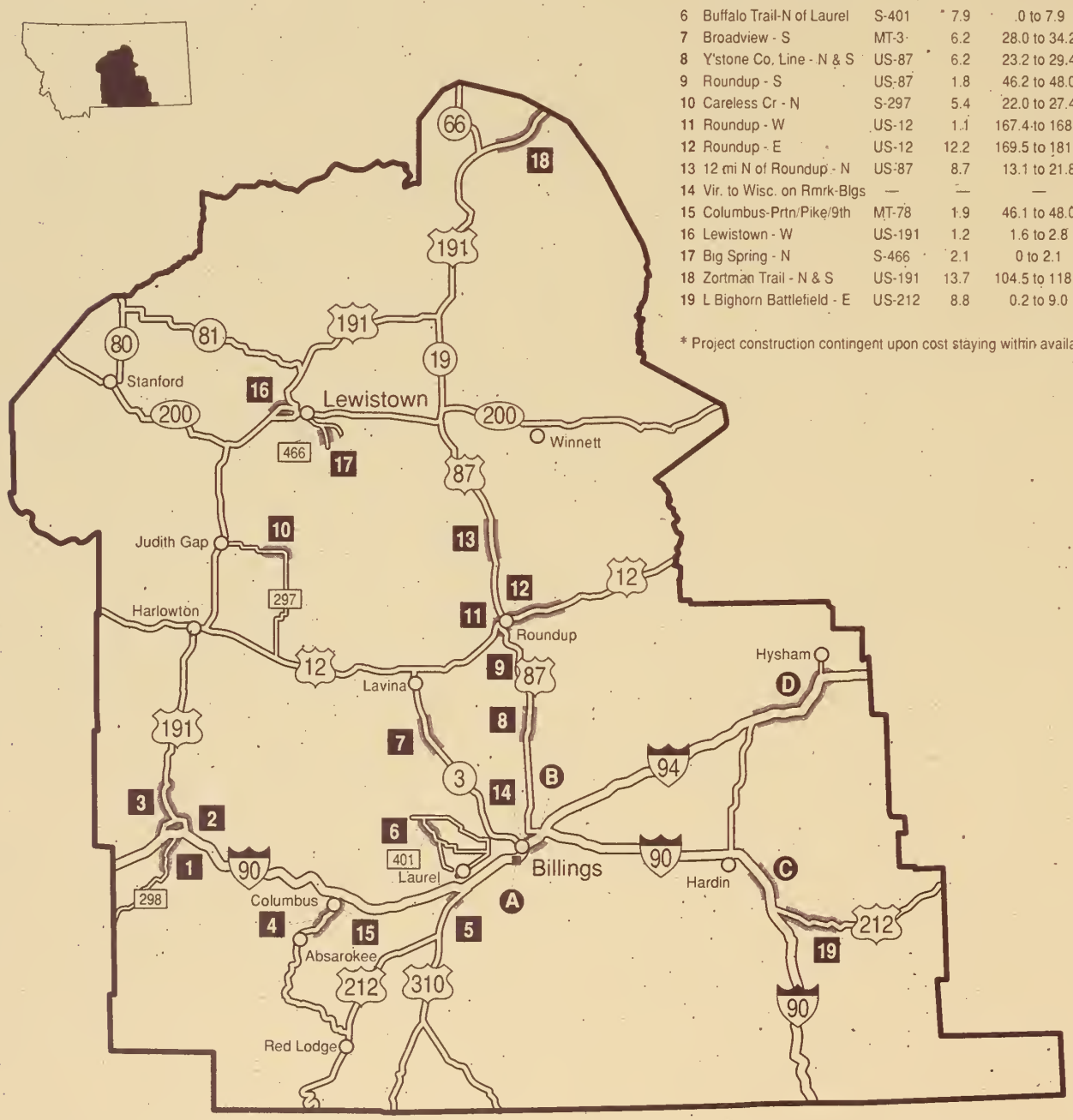
Route	Location	Length	Description
I-90	Three Forks - W	4.5	Rehab Concrete
US-12	Townsend-Urban	1.4	Reconstruct
US-287	Townsend-Toston	10.3	Reconstruct
US-89	Livingston - S	22.1	Widen & Resurf
US-287	Cameron - N & S	11.2	Reconstruct
US-12	White Sulphur Spgs - S	8.6	Reconstruct
MT-287	Twin Bridges-Sheridan	8.5	Reconstruct
MT-41	Twin Bridges - N	6.2	Reconstruct
MT-43	Wise River - W	13.9	Resurface
MT-41	Dillon - NE	1.8	Reconstruct
US-89	Ringling - N	8.1	Reconstruct
MT-84	Madison River - E	9.9	Reconstruct
MT-84	Four Corners - W	6.9	Reconstruct
—	Oak St-Bozeman	—	Reconstruct
BR-15	Dillon-N Montana St	0.7	Reconstruct
S-278	Carroll Hill - E & W	5.4	Reconstruct
S-279	Silver City - W	7.6	Resurface
—	North Main Street-Helena	0.8	Reconstruct
US-12	East Helena - E	7.3	Resurface
US-89	Mission Interchange - N	8.1	Reconstruct
I-15	Forestvale Interchange	0.0	Interchange
I-15	Dillon-Apex	11.0	Resurface
S-249	Varney - E	4.5	Reconstruct & Structure

BILLINGS DISTRICT

Projects proposed after 1997

Two to seven or more years development time is necessary to complete preliminary work. Permitting, design complications, right of way, environmental and funding issues all have a dramatic effect, so no schedule can be truly 'firm' until just prior to contract letting.

Route	Location	Length	Description
US-310	Warren - N & S	19.2	Widen & Resurf
US-310	Fromberg-Rockvale	9.0	Resurface
US-12	Musselshell - E & W	14.3	Reconstruct
US-212	Red Lodge - N	31.4	Resurface
US-191	8 mi N of Big Timber - N	7.4	Reconstruct
MT-3	Acton - NW	11.5	Reconstruct
US-87	Geyser-Stanford	12.7	Reconstruct
MT-72	Belfry - N	11.0	Reconstruct
MT-78	Absarokee - N & S	10.3	Reconstruct
—	Billings-Wisc. to 17th-Rmrk	1.1	Reconstruct
MT-19	Bohemian Corner - S	11.8	Widen & Resurf



Upcoming Construction

Projects likely to be under construction prior to or just following the '97 legislative session. (Contract lettings 11-'94 to 6-'97.)

Interstates

	Location	Route	Length	Milepost	Description
* A	Shiloh I-90 Interchange	I-90	—	443.2	Interchange
B	27th St-Lockwood	I-90	4.3	450.7 to 455.0	Reconstruct
C	Dunmore - S	I-90	6.0	502.9 to 508.9	Reconstruct
D	Hysham Hills	I-94	16.0	50.7 to 66.7	Reconstruct

Other Routes

1	Big Timber - S	S-298	7.3	1.0 to 8.3	Widen & Resurface
2	Big Timber Business Loop	US-191	3.4	.1 to 3.5	Resurface
3	Big Timber - N	US-191	7.3	.0 to 7.3	Reconstruct & Structure
4	Columbus - S	MT-78	8.8	37.2 to 46.0	Reconstruct & Structure
5	Y'stone R-SE of Laurel	US-212	1.0	53.5 to 54.5	Reconstruct & Structure
6	Buffalo Trail-N of Laurel	S-401	7.9	.0 to 7.9	Reconstruct
7	Broadview - S	MT-3	6.2	28.0 to 34.2	Reconstruct
8	Y'stone Co. Line - N & S	US-87	6.2	23.2 to 29.4	Reconstruct & Structure
9	Roundup - S	US-87	1.8	46.2 to 48.0	Reconstruct & Structure
10	Careless Cr - N	S-297	5.4	22.0 to 27.4	Reconstruct
11	Roundup - W	US-12	1.1	167.4 to 168.5	Reconstruct
12	Roundup - E	US-12	12.2	169.5 to 181.7	Reconstruct
13	12 mi N of Roundup - N	US-87	8.7	13.1 to 21.8	Reconstruct
14	Vir. to Wisc. on Rmrk-Blgs	—	—	—	Reconstruct
15	Columbus-Prtn/Pike/9th	MT-78	1.9	46.1 to 48.0	Resurface
16	Lewistown - W	US-191	1.2	1.6 to 2.8	Resurface
17	Big Spring - N	S-466	2.1	0 to 2.1	Resurface
18	Zortman Trail - N & S	US-191	13.7	104.5 to 118.2	Resurface
19	L Bighorn Battlefield - E	US-212	8.8	0.2 to 9.0	Resurface

* Project construction contingent upon cost staying within available demonstration funding.

REPORT TO THE

54th

LEGISLATURE

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